NATIONAL PETROLEUM NEWS

June 4, 1947
Vol. 39—No. 23

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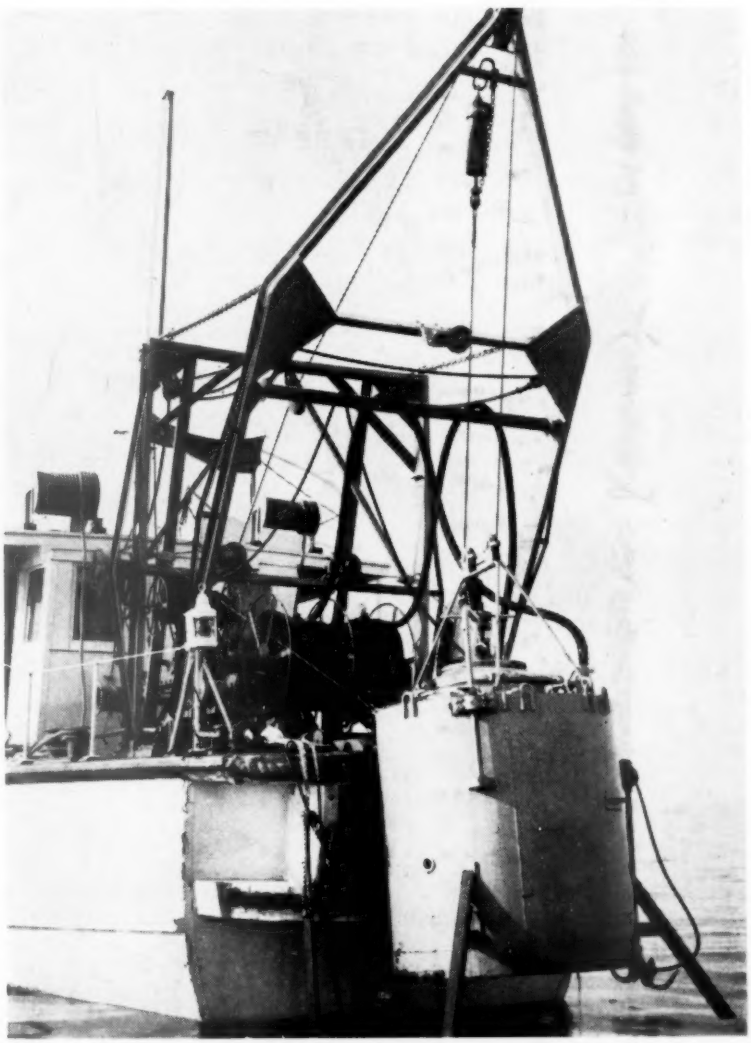
DETROIT

49 Companies Plan 407,000 B/D Refining Construction

Forty-nine companies plan refinery construction totaling 407,000 b d to be completed by the end of 1949, but this is small compared with the probable trend of demand, says Fred Van Covern, director, API Department of Statistics in paper for API Refining Division meeting at St. Louis. Complete text of Mr. Van Covern's paper, discussing the petroleum supply and demand problem, appears in the News Section.



Two-ton diving chamber is lowered toward ocean floor in search for oil in the Bahamas water. Inside the six-foot chamber a scientist operates a gravity meter to map the formations beneath the surface of 2,000 square miles of water

Lubricate for Safety

Safety at low cost is a good buy for car owners who adhere to 1,000-mile lubrication. This was one of several arguments advanced at meeting of API Lubrication Committee. There are opportunities for many TBA sales while doing a good 1,000-mile lube service job for customers. For complete text of one paper and condensation of another given at the Los Angeles meeting turn to p. 39.

Promote Annual Fuel Oil Contracts

Utilization of all available fuel oil storage can be promoted through use of annual contracts. Other benefits to be obtained from annual contracts are discussed in article on p. 44.

Bahamas Search for Petroleum

Exploratory work being carried on in 85,000-square-mile area of Bahamas focuses attention of oil industry's production and marketing leaders on Nassau and vicinity. Story of how exploration is carried on from airplanes and diving bells, plus a general discussion of oil potentials in the Bahamas is told by Editor Warren C. Platt, starting on p. 30.

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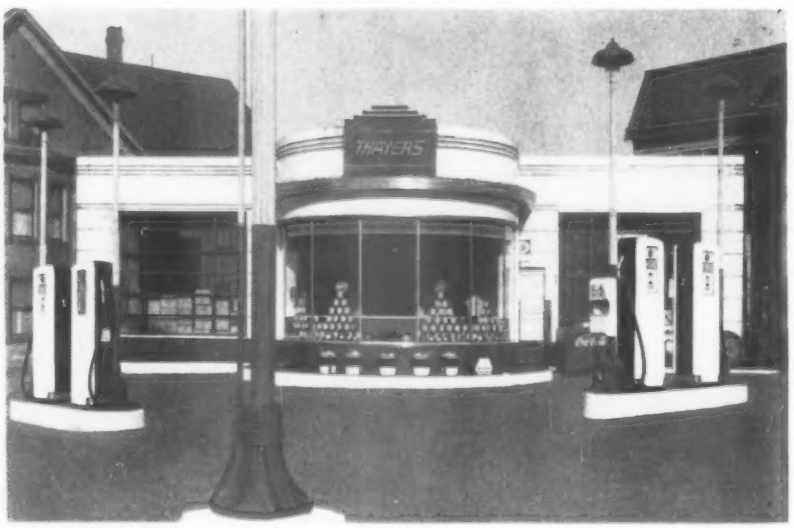

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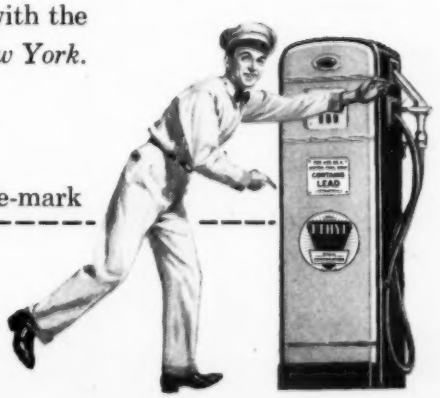

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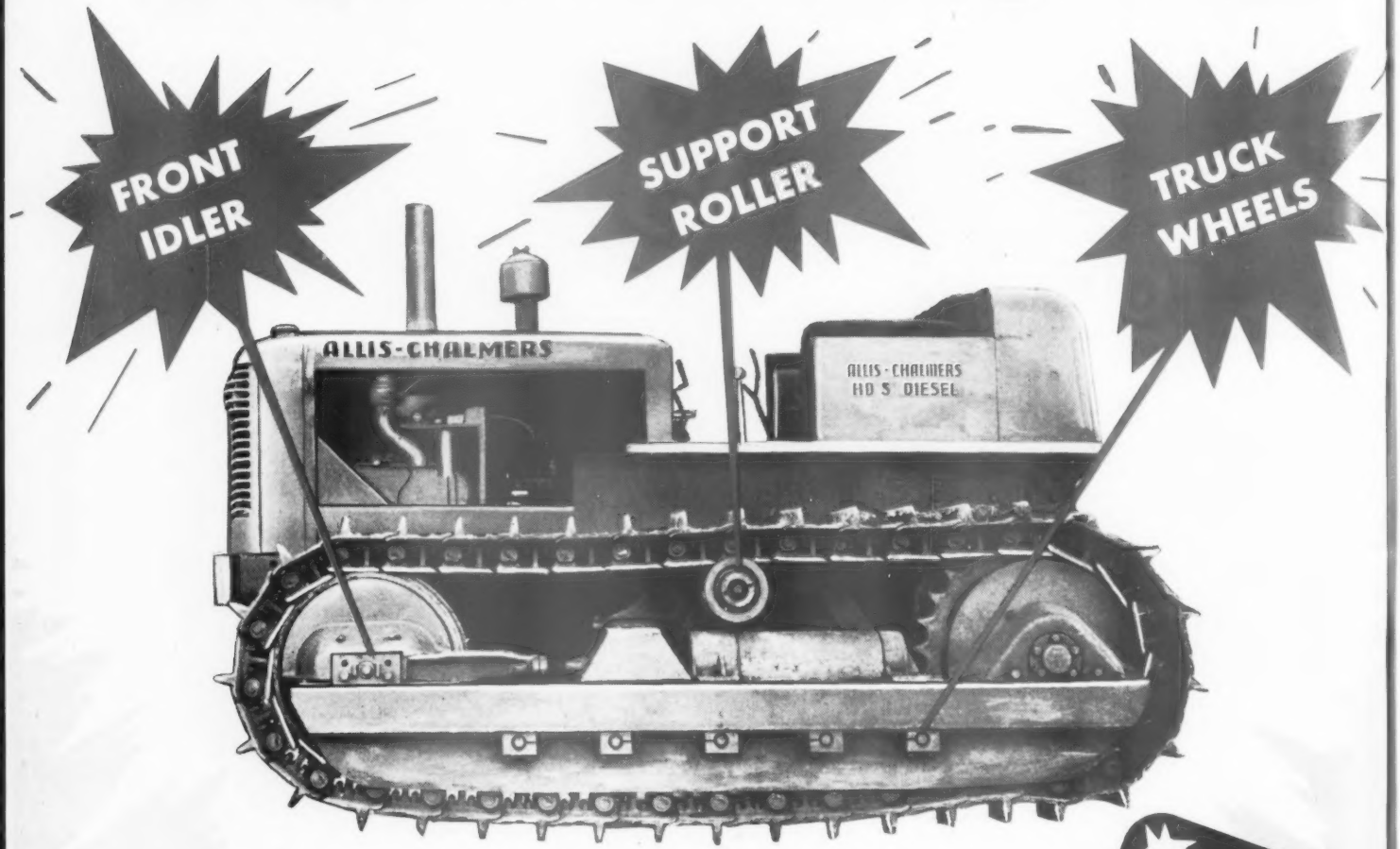

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NATIONAL PETROLEUM NEWS

Vol. 39—No. 23 ESTABLISHED 1909 **June 4, 1947**

THE NEWS WEEKLY OF THE OIL INDUSTRY

COMING MEETINGS

JUNE

Tennessee Oil Men's Assn., mid-year meeting, John Sevier Hotel, Johnson City, Tenn., June 8-10.
Texas Butane Dealers Assn., 2nd annual meeting, Buccaneer and Galvez Hotels, Galveston, Tex., June 9-11.
Oil Trade Assn. of Philadelphia, annual spring golf outing, Huntingdon Valley Country Club, June 11.
Chicago Oil Men's Club, annual spring golf party, Rolling Green Country Club, Arlington Heights, Ill., June 12.
American Society of Mechanical Engineers, semi-annual meeting, Stevens Hotel, Chicago, June 15-19.
American Society for Testing Materials, 50th annual meeting, Chalfonte-Haddon Hall, Atlantic City, June 16-20.
API Executive Committee meeting, Hershey Hotel, Hershey, Pa., June 17.
Wisconsin Petroleum Assn., Dell View Hotel, Lake Delton, Wis., June 19.
Georgia Independent Oilmen's Assn., annual meeting, Dempsey Hotel, Macon, Ga., June 19.
Florida Petroleum Marketers Assn., summer meeting, Sheraton Plaza Hotel, Daytona Beach, Fla., June 20.
Southwest Petroleum Credit Group, Adolphus Hotel, Dallas, June 22-24.
Kentucky Oil & Gas Assn., annual meeting, French Lick Hotel, French Lick, Ind., June 26-27.
Rocky Mountain Oil & Gas Assn., mid-summer meeting, Mammoth Hotel, Yellowstone Park, June 26-28.
API Marketing Committee meeting, Hotel Nicollet, Minneapolis, June 30-July 1.

JULY

New York Oil Heating Assn., Inc., annual outing, Engineers Club, Roslyn, L. I., July 19.
API Lubrication Committee, Executive Committee, Skytop Inn, Skytop, Pa., July 29.

AUGUST

National Council of Independent Petroleum Assns., quarterly meeting, Stevens Hotel, Chicago, Aug. 6-7.
Interstate Oil Compact Commission, quarterly meeting, Rainbow Hotel, Great Falls, Mont., Aug. 11-13.
Society of Automotive Engineers, West Coast transportation and maintenance meeting, Biltmore Hotel, Los Angeles, Aug. 21-22.
Kentucky Petroleum Marketers Assn., golf tournament, French Lick, Ind., Aug. 28.

SEPTEMBER

ASME, fall meeting, Hotel Utah, Salt Lake City, Sept. 1-4.
National Butane-Propane Assn., convention, Jefferson Hotel, St. Louis, Sept. 15-17.
Michigan Petroleum Assn., fall convention, Park Place Hotel, Traverse City, Mich., Sept. 16-17.
API Lubrication Committee, Traymore Hotel, Atlantic City, N. J., Sept. 17-18.
SAE, tractor meeting, Hotel Schroeder, Milwaukee, Wis., Sept. 17-18.
National Petroleum Assn., annual meeting, Traymore Hotel, Atlantic City, N. J., Sept. 17-19.
Independent Petroleum Assn. of America, annual meeting, Oklahoma City, Sept. 29-30.
AIME, Petroleum Division, two-day technical meeting in conjunction with regional meeting, Denver, Colo., Sept. 28-30, Oct. 1-2.

OCTOBER

SAE, autumn aeronautical meeting, Biltmore Hotel, Los Angeles, Oct. 2-4.
ASME, Petroleum Mechanical Engineering Conference, Rice Hotel, Houston, Oct. 6-8.

Contents

NEWS SECTION 11

FEATURE INDEX

BAHAMAS OIL SEARCH—NPN Editor Platt writes an on-the-scene account of important exploratory work for crude oil being carried on in 85,000-square-mile area of the Bahamas 30

LUBRICATE FOR SAFETY AND PROFIT—Lubrication is cheap as preventive maintenance, API Lubrication Committee meeting told; loopholes in 2,000-mile lube periods hit. TBA sales possibilities exist while doing lubrication work 39

FUEL OIL SECTION—Annual fuel oil contracts are an aid in utilizing all available storage p. 44. . . . Illinois oil company discontinues burner sales because of uncertainty of fuel oil supply p. 44. . . . Recommended burner adjustments for best utilization of "cat" cracked fuel oil p. 46 44

LPG OPPORTUNITIES—Both prospective and established marketers of LPG will find valuable information in Howard Felt's story on supply-demand picture and operating tips 49

DEPARTMENTS

About Oil People 68
Advertisers' Index 71
Ahead of the News 5
Editorially Speaking 27
Equipment Personals 67
Markets 58
Midwest Comment 9
Oil Prices 60
Statistics 64
Transportation News 55
Washington Comment 9

PUBLICATION OFFICE: 1213 West 3rd Street, Cleveland 13 ,Ohio, CHerry 7672.
Cable Address: "PLATTOIL ,Clevelandohio". Cable inquiries are answered by mail unless sufficient funds in United States money are advanced for cabled reply.

NEWS BUREAUS

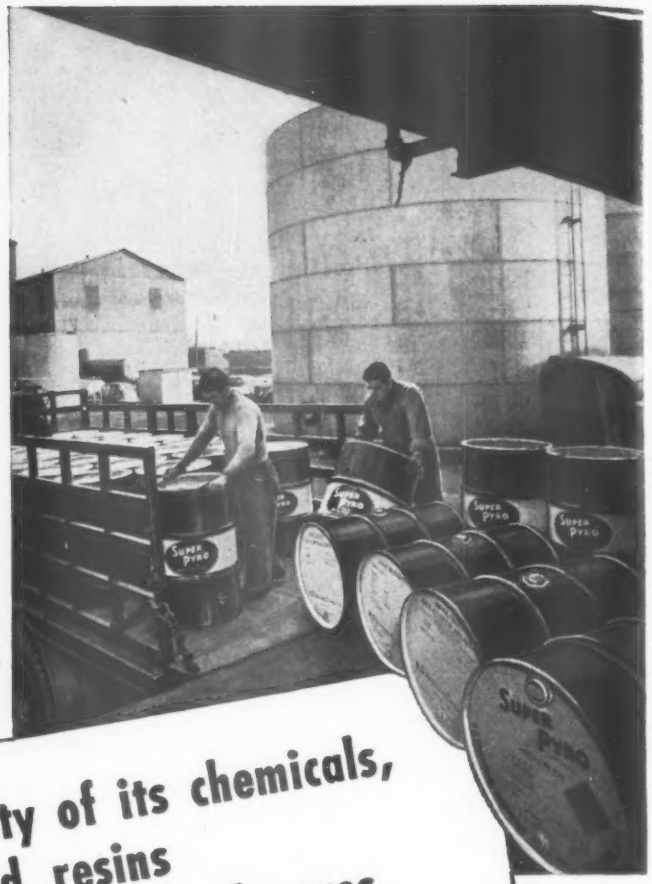
New York.....COlumbus 5-1695
50 West 50th St., New York 20

Chicago.....HARrison 5901
59 East Van Buren St., Chicago 5

Washington.....National 3477
1034 National Press Bldg., Washington 4

Tulsa 3-7132
904 World Bldg., Tulsa 3

Subscription rate $5 per year in United States, Mexico and Pan-American Countries; $6.50 in Canada and Foreign Countries. Current copies 20 cents, except special issues; back copies more than two months old 30 cents per copy. Trade Mark Registered U. S. Patent Office. Copyright 1947 by the National Petroleum Publishing Company. Entered as second class matter January 17, 1910, at Cleveland, Ohio, post office under act of March 3, 1879, by the National Petroleum Publishing Company



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AHEAD of the NEWS

IF THE TRUTH BE KNOWN—It may not come out in the hearings under way at Washington, but the fact is that the State Department now doesn't really much care whether the Anglo-American Oil Agreement is ratified by the Senate or not. The reason: State regards the original purpose of the agreement to have been the promotion of stability in Middle East oil affairs and recognition of American rights there; now views the need as no longer emergent because things have pretty well straightened themselves out in the normal course of events.

●

SHIFT IN BUYING HABITS—An increasingly penny-conscious public has created a major shift in motorists' buying habits. Premium gasoline sales, which during early postwar climbed to new highs of 60% to 75% of total gallonage, are now down to 35 to 54% of total, although sales of both grades of gasoline have increased. Shift began eight months ago. Prewar, premium sales averaged 25% of total gallonage.

●

WAGE HOUR SUITS—Unnoticed in the general relief over passage of the portal pay bill are some incidental benefits to all employers. The two-year statute of limitations is a long sought reform applying to all kinds of suits for overtime back pay, as is the provision for reasonable compromise of disputed claims. The latter should remove the stiff double penalty judgments which were mandatory under the old law.

●

LPG FINANCING—Local bankers should be supplied with more data on the LPG industry and its methods of operations in order that they may better appreciate the industry's future and enable distributors to secure five to 10-year loans. Long term loans at reduced interest rates would enable distributors to get on a minor utility basis of operations by installment of 500 and 1,000-gal. consumer storage tanks equipped with meters and filled with LPG. Fuel would be metered to customers and paid for as used.

●

WHY A U. S. LOAN?—A clincher to the argument of some State Department officials against allowing Mexico to use part of an Export-Import Bank credit to construct a new gas line from Poza Rica to Mexico, D. F., may be the knowledge that several American firms have offered to undertake the project as a private venture, using their own money.

HITCH IN GET-ALONG—The War Department's newly uncloaked plan for setting up affiliated units of the Organized Reserve Corps in various lines of civilian endeavor isn't likely to get going in the oil industry for some time. The Army has yet to select an officer for centralized liaison between its various service branches and this key industry. In other fields, however, it has some crystallized ideas. Plans have been made to organize in Washington, D. C., for example, units ranging from a 13-man signal equipment installation detachment of telephone company employes to a military police battalion of more than 600 members of the local police department.

●

SYMPHONY OF SYNTHESIS—Interior Department is expecting other oil and coal companies to join hands in ventures such as the experimental project announced recently by Jersey Standard and Pittsburgh Consolidation Coal Co., for turning coal into gas and then refining it into synthetic liquid fuels. Interior believes that past rivalry between solid and liquid fuels has been largely brushed away by impact of wartime experiments, primarily in Germany, showing unlimited future for manufacturing liquid fuels from the world's tremendous coal resources.

●

CHANGE OF SHELL CAPACITY—One major Pennsylvania oil company is reported to be in process of changing from temperature correction to shell capacity basis. Temperature correction was one of the first problems tackled by the Pennsylvania Petroleum Assn. at its organization last December. Other companies are said to have the matter under serious consideration. In the meantime, the association is continuing its efforts to make shell capacity standard in that state.

●

ROCKING CHAIR SPEED—Participants in the Lenoir Chair Co. case, which may determine whether private motor carriers are brought under full ICC regulations, as are for-hire truckers, don't expect the ICC to make a decision for at least another six months. The case now is before the Commission's Motor Carrier Division—headed by three ICC commissioners—and subordinate divisions of ICC usually take months and months to mull over cases which involve broad principles, such as the Lenoir case. Whichever way the Motor Carrier Division rules, the losing side is expected to appeal to the full commission and, finally, to carry the fight all the way to the U. S. Supreme Court.

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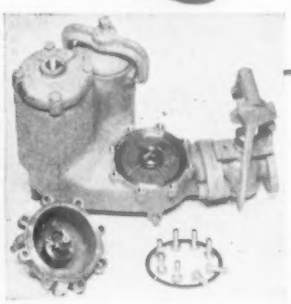
ONE EXAMPLE OF EASE OF SERVICING



Remove 8 bolts and the measuring chamber of the 1¼" Compact Red Seal Meter can be lifted out and cleaned. Strainer and air release valve are equally accessible.

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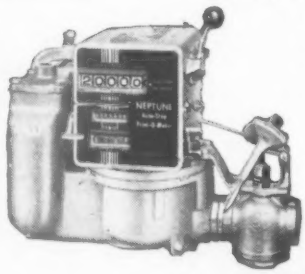

Neptune Red Seal Meters are available in sizes and capacities for every bulk plant and tank truck requirement. Pictured here is the 2" Compact for tank trucks. Strainer, air release valve and back pressure valve are assembled with the meter—save valuable pay-load space and weight. Auto-Stop feature permits automatic delivery of preset gallonage. Print-O-Meter provides fool-proof printed ticket showing exact quantity delivered. However, all Red Seal Meters can be bought without Print-O-Meter or Auto-Stop.

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A-1017

Mr. Yocom

WASHINGTON—By Herbert A. Yocom

OGD Faces Rough Going Ahead On Matter of Operating Fund

That there is rougher going ahead for Interior's Oil and Gas Division, even though the Senate may vote to restore some of the money that has been eliminated from its 1948 appropriation, is indicated by the fact that the House now is only a little past the half-way mark in its drive to trim $6 billion from President Truman's budget for the next fiscal year.

A slash of $475,809,000 in the money request of the War Department—if accepted by the House as proposed last week by its Appropriations Committee—would leave the Republican leadership still shy something like $2.8 billion of the desired goal. And with only four more major money bills remaining to be acted upon in committee, clearly there is but one conclusion possible.

That is, if the House is to come anywhere near close to its ultimate objective it is going to have to fight for and to hold on to the cuts it has already made in bills that long since have moved over to the Senate side of the Capitol.

Among these, of course, is the Interior Department appropriations bill which carries funds for OGD, among other items. There is only $124,000 in the bill now for the oil agency, none of which can be used for any purpose other than enforcement of the Connally Hot Oil Act. OGD wants its appropriation restored to the full $463,900 it had requested, and the industry, generally speaking, has gone along with it at least to the extent of urging that the Senate allow something more than did the House, while at the same time expressing sympathy with the objective of economy in federal spending.

The next move is up to the Senate Appropriations Committee. A sub-group has completed hearings on the Interior bill and, after its recommendations have been passed on by the full committee, the measure will be sent to the Senate floor.

If the subcommittee proposes more money for OGD—and there is some prospect of its doing that—the full committee likely will go along and so, too, the Senate. Then would the stage be set for OGD's biggest and final test, that of trying once more to clear the hurdle of a House that now, more than ever, is on serious business bent.

John Taber has his axe men in a give-no-quarter mood and, unhappily for OGD, that doesn't augur well for the agency's future, the way this corner sees it.

* * *

Up until about February, a year ago, there would have been no employe of the Interior Department dare come forward with a remark such as one offical of that agency made before a Senate Committee the other day. He was Elmer Pehrson, chief of the Economics and Statistics Branch, Bureau of Mines, and here is what he said:

"The statement that we are rapidly becoming a have-not nation has been widely publicized, and those of us in Washington who have been intimately concerned with minerals for many years feel that a distorted picture has been given."

Until he resigned in a huff little more than a year ago, foremost exponent of the idea that the U. S. is running out of just about everything was none other than Mr. Pehrson's boss, by name Harold L. (How-Can-They-Get-Along-Without-Me) Ickes. It was the Old Curmudgeon who did more than any one else to publicize the have-not notion, in magazine articles that bore such alarming titles as "We're Running Out of Oil" and "Our Vanishing Resources."

How times have changed!

Mr. Lamm

MIDWEST—By Earl Lamm

Opinion Divided on Shortage; Industry Clarification Needed

There is a great deal of confusion in the Midwest about the exact status of the petroleum supply situation and the industry is under solemn obligation to clarify it.

Opinion is divided as to the extent of the shortage, and whether or not the public should be informed that it is critical or may become so soon. Some oil men are so confident that the big demand can be met that they prefer to keep quiet and avoid discouraging the consuming public. Others believe that the public should be alerted so that those who can will have time to arrange for supplies of some fuel other than oil and gas before next heating season.

A critical shortage alarm was sounded at the recent jobber meeting in Chicago, but most of those who attended returned home to find things about as they had left them—fairly quiet with no one actually seriously hurt so far by the shortage, although some bulk plant and service station operators are being inconvenienced by transportation delays.

Without exception, all marketers, both big and little, are ambitious to sell more products, and individually feel that they could take many of their competitors' customers if they could only find a way to guarantee a year-around supply of products. Thereby hangs the tale of the shortage. As we understand it, nobody is able to make such a guarantee to new customers without penalizing his old ones, and most suppliers are cautioning their jobbers and bulk plant operators about taking on new accounts.

Some in oil marketing, located in thinly populated areas, discuss "the coming oil shortage" in an off-hand manner that indicates they are not worried, and it is quite possible that they have no reason to be.

In looking ahead, however, we would like to point out that the major oil company economists whom we have met, and who have been forecasting shortages, are not queer, long whiskered, futuristic characters inhabiting cubbyhole offices. They do not spend their time alone merely pulling numbers out of a hat.

The principle on which they work in a way resembles the manner in which an atomic bomb is put together; that is, it is both complicated and expensive. John W. Boatwright, economist for Standard of Indiana, for instance has about 100 people working in his department alone. They gather statistics on everything concerning petroleum consumption —oil burners, automobile registrations, tractors and other farm and road machinery, industrial machine installations, Diesel equipment, including locomotives, to name a few. They must know the size, hours of operation and estimated consumption of each type of machine. They study past performance of the machines and their probable length of life,

(*Continued on p.* 53)

Michigan Marketers Head Takes Active Role in Civic Affairs

James E. Truesdell

James E. Truesdell, who was elected president of Michigan Petroleum Assn. at the annual convention in Detroit in April, is a family man and an example of the Independent jobber's interest in the business, civic and religious affairs of his hometown.

In business, Mr. Truesdell is vice president and manager of the Flint Division of J. Austin Oil Co., one of the oldest jobbers of Shell products in the state—it started in 1922. Sales in 1946 were more than 6 million gals. of gasoline and about 2 million gals. of fuel oil. In addition to the Flint Division, the company has a Wayne Division; that is, a bulk plant and other facilities located at Wayne, Mich., which are operated under separate local management.

Three brothers are interested in the company in addition to James E. A. L. Truesdell is president of both divisions and A. S. Truesdell is secretary-treasurer of both divisions of the company. Alfred Truesdell manages the Wayne Division.

"Jim" Truesdell, as the Michigan association president is known to his friends, is a believer in constructive expansion. He is supervising the drafting of plans for a new headquarters building and bulk plant arrangement at Flint which will cost approximately $50,000. He is also chairman of the Finance Committee of the First Baptist Church at Flint, which is raising funds for erection of a new church edifice.

Mr. Truesdell obtained most of his education in schools at Ypsilanti, commuting from the farm near Wayne where he was born Nov. 30, 1906. He graduated from high school there in 1924, attended Michigan Normal College for two years, then transferred to the University of Michigan at Ann Arbor, where he studied pre-law for another two years.

When in Normal, he met Miss Margaret Gildard from Cleveland, O., who planned to become a school teacher. However, when she graduated in 1928 and Mr. Truesdell's two years at U. of M. were up, they were married. He spent the summer of that year aiding a fourth brother, Charles Truesdell, in the construction of homes.

In January, 1929, "Jim" joined J. Austin Oil Co. as a salesman, but was soon given extra duties, making collections, supervising service station operations and office work. When he left for Flint in 1936, he was acting assistant to his brother, Alfred, who had charge of operations at Wayne.

Mr. and Mrs. James E. Truesdell have four children. Daughter Sue, 18, is attending Frances Shimer College at Mt. Carroll, Ill. James is 16, Dean, 14, and John, 4. The three boys account for Mr. Truesdell's interest in Boy Scouts. He is vice chairman of the District Committee of The Tall Pine Council and is a member of the Executive Committee.

In addition to being chairman of the Finance Committee of the First Baptist Church, he is chairman of the board of trustees. He is also a member of the Civilian club, U. of M. Alumni Club, Detroit Oil Men's Club, has been a director of MPA since 1938, and served as treasurer for five years prior to being elected vice president in 1946 and president this year.

High Compression Engine Described by Kettering

Commercial Development Will Be Gradual, SAE Told; Can Be Operated with 100 Octane (Research) Fuel

FRENCH LICK, Ind.—A high compression automobile engine, operating on high octane gasoline with an average fuel economy of 33%, is definitely on the way but it is not a simple overnight possibility, Charles F. Kettering, retiring General Motors vice president and research division manager, said in a talk prepared for delivery here June 4.

The newly developed General Motors engine, which increases the compression ratio from the conventional 6.5 to 1 to 12.5 to 1, is still in the experimental stage. A general description of the engine and details of some 10,000 miles of road tests under widely varying conditions were revealed in Dr. Kettering's paper, prepared for the annual summer meeting of the Society of Automotive Engineers, June 1-6 at the French Lick Springs Hotel. (For earlier information about this development, see NPN, Jan. 8, 1947, p. 30; and May 7, 1947, p. 5).

Says They Are Not Far Off

"High compression ratios are not very far off," Dr. Kettering said, "with a little co-operative work between the petroleum and automobile industries.

"The jump from 6.5 to 12.5 compression ratio cannot be made at once for various reasons," he pointed out. "There are almost 30 million vehicles on the road which do not require higher octane gasolines. It will be many years before they are worn out."

The engine described in Dr. Kettering's paper is not a production design and was intended only as a means of obtaining the experimental data desired. It was built and installed in a stock model car to demonstrate that compression ratios almost as high as those in Diesel engines could be made for a passenger automobile.

Sees Gradual Change

"While it would not be possible for the automobile industry to entirely retool to obtain the full advantage of 12.5 to 1 in any year, neither would it be possible for the oil industry to shift over to the production of high octane fuel overnight," Dr. Kettering stated.

"In designing new engines it is possible to incorporate such factors that compression ratios can be increased in succeeding models without the necessity of complete retooling. Then, by increasing the compression ratio in step with the fuel, it will ultimately reach the maximum values.

"The changes can come as rapidly as automotive engineers and petroleum chemists learn how to commercialize the possibilities.

100 Octane (Research) Can Be Used

"With reasonable attention to design factors affecting knock, it will be possible to build high compression automotive engines which can utilize to advantage the sensitive types of high octane number gasoline that the petroleum industry is able to produce most economically by present refinery technology.

"Under these conditions, a sensitive type of fuel having a research octane number approximately 100 will operate satisfactorily in engines at 12.5 compression ratio.

"While it is recognized the trend toward higher compression ratio must be gradual and orderly, it is believed that this trend may possibly be greatly accelerated if the required correlation between fuels and engines is taken into consideration while making new engine designs for the immediate future."

Preliminary tests were on laboratory dynamometers with an early single cylinder and a later six cylinder model. The six cylinder high compression engine was then installed in one of two of the same model stock automobiles, both weighing 4110 lbs. and both equipped with Hydra-Matic transmissions. Both cars have been run on comparative road tests for many months, using a number of standard high octane motor gasolines.

A comparison of constant speed level road economy of the two test cars, one with the new high compression engine, and the other with a stock engine, is shown in Fig. 1.

Compare Road Economy

At 40 mph the standard car has a fuel economy of 18.5 mpg while the 12.5 compression ratio car has an economy of 26.5 mpg, an improvement of about 40%. At 60 mph, the saving is about 35%. The average for all types of service was 33%.

Several very significant things about the performance of three widely different fuels in the high compression engine are illustrated in Fig. 2:

1. It is possible to operate this 12.5 compression engine with 99/87 octane number gasoline, although with some slight detonation at speeds above 55 mph.

2. With comparatively small changes in spark advance, an engine of this type can be operated satisfactorily over the entire speed range with a fuel of approximately 99/87 octane number.

3. The relatively high ratings of diisobutylene and of the experimental test fuel with respect to iso-octane are better than would be expected from an interpretation of the research and ASTM octane numbers.

Diisobutylene is an extremely sensitive fuel as indicated by its research octane number, equivalent to iso-octane plus 0.5 ml of TEL, and ASTM octane number of 88.

Iso-octane is a fuel of zero sensitivity by definition, since it is the primary reference fuel.

Sees Small Premium on Fuel

The experimental test fuel was a sensitive type of gasoline which was produced by catalytic cracking. With 1.5 ml. of TEL, it had a research octane number of 99 and an ASTM rating of 85. It is understood that such a fuel could be made and sold in large quantities at a comparatively small premium.

Although complete design details of the new GM engine were not divulged in the SAE paper, a general description indicated it is similar in outward appearance to the conventional automobile power plant. A comparison as to specifications and performance factors between the high compression and 1946 stock production engines is given in Table 1.

The displacement of the high compression engine was selected in accordance with the earlier single cylinder tests so that it would deliver approximately the same horsepower throughout the speed range as the standard engine.

It was also designed to be readily interchangeable with the standard engine to eliminate installation diffi-

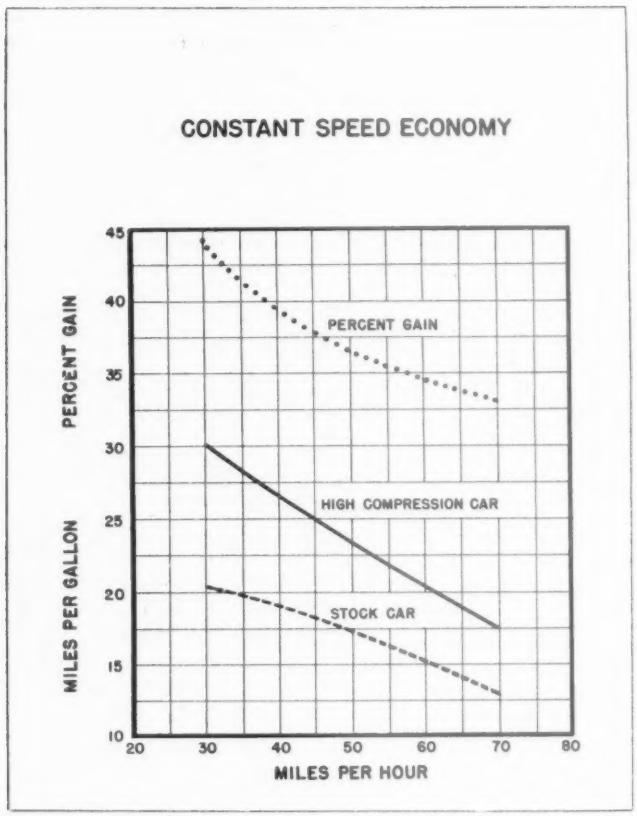


Fig. 1—Comparison of constant speed level road economy of the high compression and standard cars

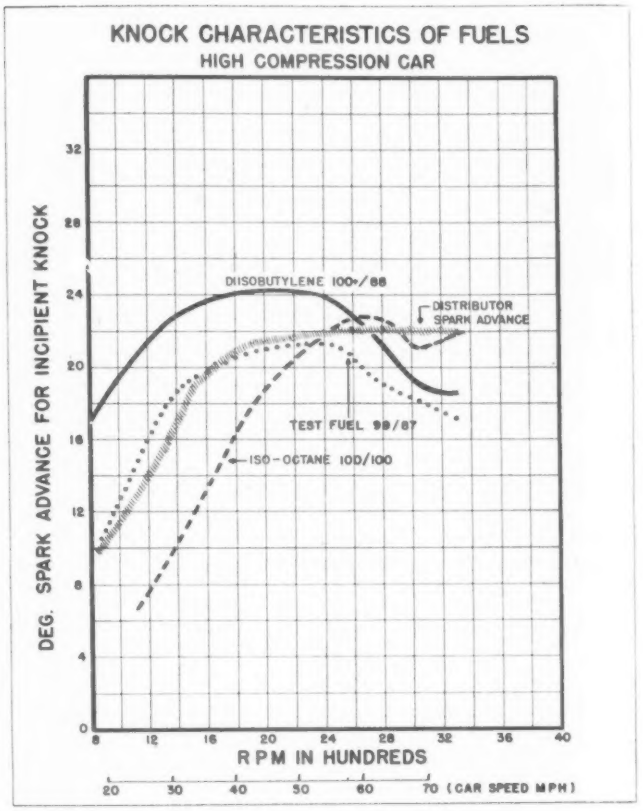


Fig. 2—Performance of three types of fuel in the 12.5 compression ratio engine. The fuels are diisobutylene, iso-octane, and a sensitive type of catalytic cracked gasoline

culties. With about the same horsepower, the same axle ratio, and the same weight, the two cars should have equal performance.

Triptane Used in Laboratory

Preliminary tests in the laboratory used triptane as fuel.

Triptane, developed by GM in its research work on fuels, was known as the "wonder fuel" of World War II. Leaded, it is said to give four times the power and up to 25% gain in fuel economy over 100 octane gasoline. GM has a plant that will make up to 10 b/d. Because of its present high manufacturing cost, it will not be commercially practicable for a long time to come, it is believed.

While it was planned to use triptane as fuel for the early work on the six cylinder engine, a compression ratio high enough to require triptane was not used. The ratio was chosen to obtain the greatest practical part of the gains of high compression ratio as indicated by the single cylinder tests. "If GM had been building a triptane engine, the ratio would have been considerably higher—probably 15 or 16 to 1," Dr. Kettering stated.

The engine was designed along rather conventional procedures except that it was made structurally rigid enough to carry the higher loads imposed. It weighs no more per horsepower than stock engines.

The early work in the laboratory utilized triptane because it had the requisite freedom from knock at the high compression ratios and would permit the evaluation of the influence of various engine factors on operation without the complications introduced by engine knock, according to Dr. Kettering.

"Through the use of triptane as a fuel, experimental high compression spark ignition engines have been built which give as high efficiency as Diesel engines and without knock," said Dr. Kettering.

"The petroleum industry needs to know what type of fuel will be required by these new engines of the future so the new refining facilities will be capable of supplying them."

TABLE 1—Comparison of High Compression and Standard Engines

	12.5 Comp. Ratio	Standard 1946 Engine
Number of Cylinders	6	6
Valve arrangement	overhead	L-head
Bore and stroke	3⅜x3⅜	3½x4⅛
Displacement—cu. in.	181	238
Compression ratio	12.6	6.4
Comp. pressure at 2000 rpm	420 psi	165 psi
Peak pressure at 2000 rpm	1150 psi	525 psi
Engine torque at 2000 rpm	154	163
Mech. efficiency at 2000 rpm	85%	81.5%
Max. brake horsepower	95 @ 3600 rpm	85 @ 3400 rpm
Miles/gal. at 49 mph	26.5	18.5
Rear axle ratio	3.63	3.63
Car test weight, lbs.	4110	4110

Truman Plans Tanker Plea

WASHINGTON—With only 26 more days to go before U. S. Maritime Commission loses its authority to operate surplus tankers, there were indications here June 3 that White House will step directly into fight to get Congress to approve legislation to keep tankships on high seas after June 30.

President Truman, it was reported, may intervene privately with Republican leadership in effort to jar Merchant Marine and Fisheries Committee into action on recommendations by USMC that it be allowed to retain tanker bottoms in service.

A-NPB Has Good Start on Picking Military Oil Organization; Works to Extend Roster

NPN News Bureau

WASHINGTON—Should another war erupt, the Army-Navy Petroleum Board could almost literally pluck a basic military oil organization ready-made from a desk drawer in its Plans Division.

It has there, at least, War and Navy Department lists of some 5,500 ex-service men in the industry which would enable it to find promptly enough seasoned oil men who know their way around in uniform to fill most of the key petroleum posts which would have to be occupied if Army, Navy, Marine Corps, Air Forces and Coast Guard were to get off to a flying start in a national emergency.

But because A-NPB couldn't count on getting every one of those it might want from its lists, and for other obvious reasons, it is working to extend the rosters and keep them as current as possible.

It is making a special effort now to reach and enroll men in the smaller companies, individuals operating as consultants, exporters-importers, men dealing with petroleum on municipal, county, state and federal payrolls, and otherwise, who have been missed since this phase of its program began about a year ago.

Military personnel records have been searched, the API has helped and all major companies have co-operated, as have individuals in getting up the lists. But A-NPB officers are certain that fully 1,000 more in the above-named categories could be added if they knew about the project and were aware of what it could mean for them as well as their country.

The master list which A-NPB will have before long will not be a "draft" list. In fact, probably 30% of the men whose names have been listed so far are not members of the reserves, who could be called immediately to active duty.

Valuable Ready Reference List

It will be, however, a valuable ready reference list, calculated to help the military fill key positions with persons especially qualified for special jobs—even though the nation might be hard-pressed for time, as most authorities say it's bound to be if war comes again.

Military experience—whether in a petroleum capacity or not—would be taken into account in choosing the individual for a particular post, but it will not be necessary for enrollment. A-NPB wants to list as it goes along all oil men who could bring substantial experience to bear in an emergency. It will list individuals in every phase of the industry, from office boys on up—office boys having a way of developing into executives.

It would be pleased, too, to hear from ex-WACS, former WAVES and other one-time service women who might have served in clerical or similar capacities in connection with military petroleum activities. It hasn't yet determined that it shall enroll women employes of oil companies who would be interested in such assignments if need arose. Chances are, though, it wouldn't say nay to the girls.

Being put on the list does not obligate anyone to join any military reserve. A-NPB, however, will encourage qualified individuals to do so. It has in mind also offering 90-day overseas tours of temporary duty to specially qualified men.

In building its list and expanding its files, it is using a standard questionnaire, copies of which may be obtained by writing to Army-Navy Petroleum Board, Plans Division, Room 2021-L, Navy Department, Washington 25, D. C.

On this form, the applicant for enrollment reports name, date of birth and mailing address; military rank, rate or grade, along with military serial number, branch of service and number of years of active military service, if any; whether he is a member of Army or Navy Reserve or National Guard; employer's name and address; number of years of experience in any of a dozen types of petroleum activities; any engineering, construction or other type of experience; present and prewar job descriptions; type of any military service during the last war; language proficiency; name of any foreign country or countries where petroleum experience was acquired; whether he would be interested in a military petroleum assignment in event of war and what petroleum assignment he considers he would be best suited for, and any other pertinent information he might choose to include.

Some respondents to these questionnaires have been a little unorthodox in completing them. One man advised the board that if war came he would find "the deepest cave in Pike's Peak" and hole up there, and a similarly minded gentleman said the petroleum assignment he would choose would be that of filling his gasoline tank and taking off "for the wide open spaces."

Still another followed literally the instruction on the form to "State languages," and, instead of putting down the customary "U. S." or "English," wrote "Kentucky."

Response of nearly all who have been contacted, however, has been highly gratifying, A-NPB officers say. One surprising revelation on this score has been the number of ex-service men who reported Canadian or Alaskan service and signified they would prefer cold-weather work.

Army's Workday Reserve Unit Proposal Wins Favorable Reaction in Oil Industry Group

NPN News Bureau

WASHINGTON — War Department proposal to industrial, labor and educational leaders for organization of "affiliated units" of organized reserve corps in every civilian field of endeavor has brought initial favorable reaction in oil industry group which attended conference here at which plan was broached.

Program calls for service units on voluntary basis—such as gasoline supply, petroleum laboratory, pipeline companies, etc.—which could be incorporated immediately into existing military structure in case of national emergency and take into it know-how developed in their daily work.

Units generally would be sponsored by individual companies, and be of three classes—A, B and C. As minimum, all key individuals of unit would be furnished by sponsor. Where limited personnel made it necessary, available reservists not employed by sponsor could be assigned to unit with sponsor's approval.

It was pointed out that "necessity of balancing industrial against military manpower mobilization will act to prevent unusually heavy manpower losses in the early stages of mobilization from activation of affiliation units plus selective service calls."

"Sounds good to me," said William R. Boyd, Jr., API president. At same time, he pointed out that special consideration would have to be given, in organization of these units in petroleum industry, to variety of specialized activities peculiar to this "departmentalized" industry.

Attending conference with him were: William R. Boyd, III of Petroleum Advisers, Inc.; Carl E. Cummings, director of The Texas Co. laboratories, Beacon, N. Y., and Wiley H. Butler, president, Coastal Oil Co., and chairman of Executive Committee of Atlantic Coast Oil Conference, Inc.

Plan would complement A-NPB program for keeping current a list of organized reservists and others in industry who could fill key military petroleum posts in event of war. In other words, affiliated units would take up, in the field, where top overall supply organization tapers off.

How Plan Would Work

Just how the plan would be put into practice in the oil industry has yet to

be detailed. In general terms, however, it will work this way:

Units will become part of the organized reserves but will be maintained on inactive status with cadre or key personnel furnished by officials and employes of sponsoring organizations. They could be called to extended active duty only at direction of the President after Congress has declared existence of a national emergency.

At the start, it is hoped that each unit can be built around a regular reserve officer and a few enlisted members of the Organized Reserve Corps.

Class A units will be full strength with full complements of officers and enlisted men assigned. Essential equipment for training and initial mobilization will be reserved for these units. In an emergency, they will be ready for assigned mission after a short additional training period.

Class B units will have full complements of officers and cadres of key enlisted men. On mobilization, they will be brought to full strength through the Selective Service System.

Class C units, comprising the balance of technical or specialized type units expected to be required during the first year after mobilization, will consist of full complements of officers only.

Sponsors of units will have "wide choice" of drilling or 15-day summer training, or both, depending upon types of units, availability of funds and other factors. Where a sponsor could not provide adequate training equipment, the War Department is to supply that "within budgetary limitations."

It is emphasized that the only inducements to individuals for joining affiliated units are patriotism and the likelihood of being assigned to military duties similar to his civilian job in event of emergency. Stressed also is fact that, except in emergency, the law expressly says no reserve officer or reservist may be called to active duty for more than 15 days in any calendar year without his own consent.

Department policy, it is pointed out, has been to order no reservist to active duty for any period without his consent.

Indiana Standard Employes To Get Military Leaves, Pay

NPN News Bureau

CHICAGO—Standard Oil Co. (Indiana) employes who are members of recognized military organizations will be granted leaves of absence and pay allowance for temporary military or naval duty up to three weeks each year. Provision is for employes in reserve units of U. S. armed services or in state military organizations. Army and naval reservists are included.

During military leave, employes will receive a supplement to their military pay, if necessary to make it equal to their regular salary or wage.

Charges Price 'Squeeze' to Reference Sellers; Michigan Petroleum Assn. Asks Oil Probe

Special to NPN

CHARLESTON, S. C. — Complaint has been registered with Federal Trade Commission on behalf of 40 South Carolina Independent Oil Men that, even with deep-water terminal here, they are being under-cut on gasoline prices by reference sellers.

Also apprising Justice Department and Senate Small Business Committee of situation, Batson Hewitt, president of Coastal Terminals, Inc., wrote that Independents bought terminal during war "when we were completely left out on the limb by our suppliers who had everything to say about when we got supplies and how much we were to get."

"Now that we have the avenue open to help ourselves," he declared, "for some reason those companies which have the power to say what gasoline shall sell to the market keep the price down to a lower price than even what it costs us to bring it in by cargo lots."

He cited a shipment from Gulf which arrived May 24. Cost of Coastal Terminals, delivered to dock, was $.09164 for regular 74-76 octane (B), and $.09914 for premium 78-78.5 octane (B), Mr. Hewitt said. Gulf Coast prices, he added, were $.0825 and $.09, respectively, with split tanker rates to Charleston $.00914.

Reference sellers posted spot prices of $.088 for regular and $.098 for premium, he said.

Mr. Hewitt sent copies of his letter to Justice Department and Senate committee on chance that complaint was properly in province of one or other, rather than FTC.

"We believe our complaint to be important to the oil industry, and if presented to the proper authorities, relief will be given us," he told Atty. Gen. Clark. "Everyone knows a fair margin of profit should be given small business. Everyone knows that unless a continuous fight is kept up Big Business will swallow little business."

* * *

DETROIT—Michigan Petroleum Assn. has written Senate Small Business Committee calling attention to two resolutions passed at May 22 meeting in Lansing of the association's Executive Committee; requesting investigation by the attorney general of petroleum industry to determine if monopolistic practices or other antitrust activities exist.

It's now becoming apparent, said one of resolutions, that dispositions on the part of powerful major refiners to take advantage of present critical supply of petroleum products to supplant old established distributors, which threatens existence of present wholesale petroleum business. Resolution urges legislative remedies for what, it said may have developed into monopolistic elimination of small business.

Jobber Council Writes Dworshak About Prices

NPN News Bureau

NEW YORK — The National Council of Independent Petroleum Assns. has written Senator Dworshak (R., Idaho) saying that petroleum jobbers "and probably the Independent refiners and service station operators, generally speaking, received no part of the recent petroleum price increases and wish to be cleared of any stigma attached to your charges relative to present prices of petroleum products."

The letter explained that in view of the tight supply situation prices may go even higher if the normal laws of supply and demand function and that "only out of earnings, or with new capital attracted by profits on current operations, can new facilities be provided and new sources of crude developed."

"Please be assured," the letter said, "that we are not advocating further increases in the prices of petroleum products to the public. What we want is a fair redistribution of those price increases which have already been made . . . The key to your problem and ours is the 'reference seller' who should first be petitioned to adjust his prices; for, as the 'reference seller' goes, so probably will the other companies in the same area."

Chairman Gordon Duke, who signed the letter, said he would be glad to discuss the subject of "reference seller" from "both the standpoint of your problem and ours" with Senator Dworshak. Copies of the letter were sent to Gov. Warren of California, Gov. Ford of Montana and Attorney General Clark.

(Senator Dworshak has been complaining to Justice Department about higher prices for gasoline in Idaho than in other western states while Govs. Warren and Ford have protested recent price increases in their respective states and, like Senator Dworshak, asked Attorney General Clark to investigate for possible antitrust violations.)

Waite Leaves Socal

SAN FRANCISCO—Edgar A. Waite has resigned as manager of the public relations department of Standard Oil Co. of California, it was learned here June 2. No formal announcement of the resignation has been made and Waite's successor has not been selected.

Texas Commission Chief Sees OGD As Flirting with Federal Control

Urges Division Be Allowed to Die; Hallanan Says Fears of Threat to Industry Baseless

NPN News Bureau

WASHINGTON — Chairman Ernest O. Thompson of the Texas Railroad Commission has expressed in caustic terms his opposition to continuation of the Interior Department's Oil and Gas Division, asserting that OGD should be allowed to "die aborning."

Mr. Thompson's blast was made in a letter to NPC Chairman Walter Hallanan. The exchange of correspondence between Mr. Thompson and Mr. Hallanan was made public as the Senate Appropriations Subcommittee prepared to go into executive session to draw up the Interior Department money bill which will determine whether ODG gets needed funds for operation after June 30.

After the subcommittee marks up the bill, it goes before the full Appropriations Committee and then is reported to the Senate floor. If the Senate votes restoration of OGD funds, either wholly or partially, action must be approved by the House before the measure goes to President Truman for signature.

Can't Flirt With Federal Control

Writing to Mr. Hallanan, who had appeared before the Senate Appropriations Subcommittee to urge restoration of funds slashed from OGD's budget request by the lower house, Mr. Thompson said:

"It serves you all right for encouraging the formation of a federal oil and gas department. You cannot flirt with federal control without getting taxed first and then complete federal control later. Please be careful not to ever let anyone think the industry or the oil states want any federal control. A little federal oil authority is like being a little pregnant. It grows and nothing can stop it."

(Thompson's remarks about taxation was a reference to proposal of the House Appropriations Committee that services performed by OGD of benefit to the industry should be financed out of "collections" from the industry.)

Mr. Hallanan replied to Mr. Thompson that neither he nor "any potential element" in the oil industry had urged the creation of OGD, adding that he would "yield to no one in my zeal to keep the oil industry free from governmental control or domination."

He said he believed quickest way to bring about federal control would be adoption of "negative course of opposing every constructive effort at honest co-operation with governmental authority."

Mr. Hallanan reminded Mr. Thompson of "howls" of protest about federal control when Connally Hot Oil Act was passed. He said industry then was faced with economic crisis resulting from overproduction and that Connally Act actually served to "prevent" domination by Washington.

"I think the protests about OGD being a threat to the independence of the petroleum industry are just as baseless now as they were when the Connally Hot Oil Act was passed," Mr. Hallanan declared, adding:

"I have little patience with those in the industry who seize every opportunity to shout from the housetops about the threat of federal control and who at the same time show no conception of the serious problems which, left unsolved and to run their course, would certainly bring the oil industry to the certain fate of government control. I know there are quite a few men in the industry who belong in that category—but I am confident that they represent a very small minority.

Don't Want U. S. Control

"I think we should honestly and intelligently consider every proposal that will create a more favorable attitude by the public toward the oil industry. That certainly has been the attitude of the members of the National Petroleum Council who represent every segment of the industry, both large and small. That was the attitude of the Committee of Fifteen that prepared the by-laws and charter under which the council functions in co-operation with OGD. I know there is no member of the council who believes in or wants federal control of the oil industry. They do not object to honest co-operation with the properly constituted authorities of the government and particularly so, if they can thereby place the industry squarely before the country in seeking to do everything it can legally and properly do to promote the public welfare."

Mr. Hallanan also quoted from a speech he made shortly after assuming chairmanship of NPC in which he declared that it had been made "crystal clear" that in this "new experiment" of government-industry co-operation the industry had not been asked to surrender "our freedom."

He closed his letter with statement that Mr. Thompson "may feel assured that we are not trying to deliver the oil industry into the hands of federal control now or at any time in the future."

VHP-1 Is Revised to Increase Dollar Limit June 1 on New Service Station Construction

NPN News Bureau

WASHINGTON—Dollar limit on new service station projects which can be built without specific VHP-1 authorization will be raised from $1,000 to $2,500, beginning June 1, it was announced May 28 by Housing Expediter Creedon.

Action was taken by amending Supplement 3 of veterans' housing order, which previously had limited permit-free small jobs for service station and other types of commercial buildings to projects costing $1,000 or less.

Mr. Creedon said the relaxation of VHP-1 was made possible by increasing supplies of critical building materials, but warned that there would be no further relaxation "until materials are in better supply than they are now," or unless Congress directs abandonment of all provisions of VHP-1 by repealing Veterans Emergency Housing Act of 1946. Legislation which, in effect, does just that already has House approval and now is pending in Senate.

Under new VHP-1 provisions, small job allowances for industrial type structures containing less than 10,000 square feet also are upped from $1,000 to $2,500. No change was made, however, in permit-free small jobs up to $15,000 limit for large industrial buildings.

In emphasizing his intention to retain VHP-1 on books until end of 1947—expiration date of Housing Act—unless Congress orders otherwise, Creedon termed the limitation order as "the keystone" of the veterans' housing program.

"Without the construction limitation order," he declared, "there would be a mad scramble for materials, and home-building would suffer. Prices on scarce materials would rise even higher than they are now, and the home-builder would be squeezed out in the competition."

Revision of VHP-1 represents first substantial relaxation of non-housing controls since now-defunct Civilian Production Administration clamped a tight rein on construction 14 months ago.

Anglo-American Oil Pact Meets Rough Going Before Senate Group

By HERBERT A. YOCOM
Chief of Washington Bureau

WASHINGTON—Brought out of a pigeonhole and dusted off at long last for public airing, the Anglo-American Oil Agreement was encountering heavy going before the Senate Foreign Relations Committee this week.

Almost at the outset of the long-delayed consideration of the pact—it has been pending business since Nov. 1, 1945—serious doubts were raised by committee members as to validity of the claim that the agreement in no way affects the operations of the domestic petroleum industry. And testimony of State Department witnesses did nothing to persuade them otherwise.

With a long list of industry proponents and opponents waiting to testify, the committee got right down to the nub of the controversy over ratification by pin-pointing attention on Article II, which pledges that the U.S. and Great Britain will, among other things, "so direct their efforts" that petroleum exploration, development, refining and distribution "shall not be hampered by restrictions inconsistent with the purposes of this agreement."

In the opinion of Sen. George (D., Ga.), outstanding Senate authority on constitutional and international law, the "clear meaning" of this language is that this country would be obligated to work for elimination of domestic practices that run counter to the treaty objectives.

This would apply, said Sen. George, even if the Senate should ratify the agreement with general reservations such as proposed by API, and which Undersecretary Acheson told the committee had the State Department's complete approval.

"I don't think we have to search any further to see why the Independents would not like this arrangement," said Sen. George.

Fahy Agrees with George

Charles Fahy, State Department legal adviser, agreed with the position taken by Sen. George.

Answering a question put by Sen. Connally (D., Tex.), he conceded that the agreement, if ratified, would obligate the federal government to exercise "every latent power" it now possesses to compel compliance by the states with the treaty objectives.

"I think," he said, "that if the federal government found that any of the provisions of subsections A, B and C of Article II were being violated, and that these could be corrected by legislation, the government would be obligated to seek it.

"I am saying that if, in addition to making representations to the states, the government believed that federal legislation was desirable to accomplish the purposes of Article II, it should be sought if it comes within the power of the government under the present division of responsibilities between the state and federal government."

Insisted upon by Fahy, however, was point that treaty as now drafted—and even more so, if to it are added the reservations proposed by API—in no way enlarges existing federal powers.

He urged that the Senate not reject the agreement because of Article II, "when it does not confer any power on the federal government vis a vis the states that the federal government does not now possess." There may be an obligation on the government to wield previously unexercised powers, he admitted, but final say will belong to Congress and it can be depended upon to use "sound judgment."

Asked by Sen. Smith (R., N. J.) if elimination from treaty of exception made of Article II would end industry objections to ratification, Fahy granted that it probably would, but he added hastily that he did not know how his department would react to such an elimination.

That prompted Chairman Vandenberg (R., Mich.) to observe that he couldn't see the necessity for "underscoring" in the agreement "the power that the federal government has," but may never have exercised, and to profess inability to understand why it wouldn't be possible to write proposed reservations in such a way that opposition would be satisfied.

Sen. Connally (D., Tex.) suggested that department give study to effect elmination of excepting clause in Article VII would have on agreement, as well as to effect of elimination of all of Article II

Opponents of treaty got in their first licks against it, meanwhile, with testimony of two members of Texas Railroad Commission—Olin Culberson and W. J. Murray—and that of Glenn H. McCarthy, Independent oil producer from Houston. To enable them to return immediately to Texas, they were sandwiched in between the June 3 appearance of Fahy and that of Ex-Deputy PAW Ralph K. Davies, who was scheduled to testify June 4.

Firing opening gun for the opposition, Mr. McCarthy told Committee that he believed agreement to be "the first step, the entering wedge, toward the ultimate control of the oil business by the Federal government."

"If we have regulation," said Mr. McCarthy, "let it come from those people who understand the purposes of that regulation and not from a group of federal or international bureaucrats far removed from the problems of the industry, and with no direct responsibility to the American people. If the oil industry must be regulated by the federal government, or through international commission, composed of men whose ideas of economy, society and politics may be diametrically opposed to ours, then the independent oil industry wants no part of it."

Mr. Culberson described himself flatly opposed to any sort of treaty, asserting he suspected purpose of present agreement was "to furnish a controlled market in the U. S. for foreign oil." He said his point of view wouldn't be changed even if exception in Article VII were dropped.

Mr. Murray spoke for Gov. Beauford Jester, stating that latter feared ratification would lead to destruction of Texas' exclusive powers to regulate the oil and gas business, and that this would be so even should Senate adopt proposed API reservations.

Quartermaster Fuels, Lubricants Budget Cut

NPN News Bureau

WASHINGTON — House Appropriations Committee May 29 cut $5,000,000 from Army's $35,124,000 budget estimate for fuels and lubricants, and lopped unspecified amount off a requested $92,041,444 for fuel and oil for aircraft by reducing total Air Corps budget by $116,667,492 to $733,332,508.

Further, it recommended Quartermaster Service be given $2,000,000 less than the $7,000,000 it estimated it would need for supplies and equipment for handling fuels and lubricants.

Federal taxes represented about $5,400,000 of Quartermaster's $35,124,000 budget figure for fuels and lubricants, it had brought out in hearings on Army appropriations for fiscal year beginning July 1.

Obligations in fiscal year now closing for QM fuels and lubricants were estimated at $34,962,000, while Air Forces obligations were set at $78,373,258.

Request for increase from latter figure to $92,041,444 had been explained to committee as arising from fact about $15,000,000 in inventory hangover from war now is "much depleted" and all reserve of some materials almost exhausted.

Fact that QM is developing 7½-gal. container from synthetic (rubber) fabric which it hopes will eventually replace 5-gal. blitz can used in last war was revealed to committee by Col. Webster Anderson, chief of Fuels and Lubricants Branch, in testimony on budget request for containers for packaged fuels.

Among advantages of new can were that it would eliminate problem of dented cans (when dropped) and it probably will have longer life.

No Petroleum Surplus Seen for Some Time

Must Expand Facilities If Demand Is to Be Met, API Refining Men Told

Special to NPN

ST. LOUIS — There are no apparent surpluses in sight for the oil industry even beyond March 31, 1948, and production, refining, transportation and marketing facilities will have to be enlarged if they are to carry the load, Fred Van Covern, director of the department of statistics of the American Petroleum Institute, said in a paper prepared for presentation at the API Refining Division meeting here June 2.

A feature of Mr. Van Covern's paper was a summary of new data on refining construction. Forty-nine oil companies, he said, are building or have definite plans to build 407,000 b/d in refining capacity to be completed by Dec. 31, 1949, but this is "surprisingly low" in view of probable demand.

Of the 407,000 b/d new capacity, 100,000 b/d is listed as for replacement, indicating a net gain in capacity of 307,000 b/d. The 49 companies from which Mr. Van Covern obtained information represent 80% of present U. S. refining capacity.

High costs, shortages of steel and other materials are discouraging factors on needed new construction, he said, but concluded his paper with the assertion that the oil industry "with its brilliant background of accomplishment can do the job if it can obtain the necessary supplies of steel and other materials."

Refining Capacity 5,611,000 B/D

Present total refining capacity in the United States, according to Mr. Van Covern, is 5,611,000 b/d. He said that in order to meet requirements as set forth by the Interstate Oil Compact's Economics Advisory Committee for the first quarter of 1948, operations at 91% of this capacity will be needed. (For text of Economics Advisory Committee report, see NPN April 30, p. 12.) Operations for the week ended May 24, 1947, were 88.7% of capacity.

Mr. Van Covern, like the Economics Advisory Committee, pointed to Dist. 2 as the trouble spot on supply. He said that the district needs 150,000 b/d more crude or products to arrest a downward trend of crude stocks. Both crude and product stock in Dist. 2 are lower than seasonably desirable and must be built up at a high rate this summer, otherwise the situation next winter will be difficult, according to the API director.

"Local areas of shortage may arise at any rate," Mr. Van Covern added, "particularly if the winter is colder than normal."

He said that whether the Dist. 2 challenge is met depends to considerable extent upon whether new pipelines into the area can be completed before next winter. But even so, he added, operators will have to resort to increased use of tank cars and barges and that speeding up of drilling campaigns is essential.

The need for full use of storage in all sections of the country—by householders as well as by dealers and distributors—was stressed. Tanks should be filled this summer, Mr. Van Covern said, and suggested that deferred billing might act as an incentive to do this.

He estimated that strikes cost the nation more than 12,000,000 bbls. in crude runs from Jan. 1 to May 26, and pointed out that "supplies for important consumer and industrial areas are behind to the extent of most of this curtailment."

Though he said that enough crude oil can be produced to cover the country's current requirements and those of next winter under normal weather conditions, he added that there "doubtless will be a number of cases where given companies will be short."

Text of Van Covern Paper

The complete text of the paper presented at the API Refining Division meeting at St. Louis by Fred Van Covern, API director of statistics, starts on p. 18 of this issue.

Crude Being Moved to Refineries by Tank Car In Effort to Ease Tight Supply Situation

ST. LOUIS—Dr. Robert E. Wilson, API refining vice president and board chairman of Standard Oil Co. (Indiana), pointing up the need for expanded facilities, June 2 gave a partial picture of what the oil industry is doing to overcome a tight supply situation. He declared the industry is moving an estimated 73,000 b/d of West Texas crude by tank car to plants that need it. Indiana Standard also is starting new movement of about 12,000 b/d of West Texas and Wyoming crude into the Chicago area to help meet shortages.

Citing as causes of the tight supply, the unprecedented demand for petroleum products, shortages of construction materials and postwar construction limitations, Dr. Wilson said:

"I feel that it is my duty to say to the public that, in spite of almost superhuman efforts on the part of the oil industry, there is a real danger of some shortage of petroleum products, particularly in the Middle West, during the next 10 months."

Products most apt to be hit by shortages, beginning in late summer, are gasoline and domestic heating oil, he declared. The extent of any gasoline shortage will depend on the amount of tourist travel. Shortage of heating oil is "surer," and probably will range from 0 to 10% in the Midwest, the exact amount developing from the extent and severity of winter weather.

The gasoline shortage, Dr. Wilson said, will be of short duration, if it comes. The industry will be out of trouble by next year—unless the effects of the steel shortage are protracted or there are further strikes in coal, steel or oil. The theory that the oil industry should supply gasoline at all costs, even to making less fuel oil, is weak ground, he contended. It is at least as important to supply the home burner and industrialist this winter as it is the motorist this summer. A shift to LPG or natural gas will be of no avail, he asserted, since these products face the same transportation bottleneck, or worse, as oils.

Turning to refining capacity of the industry, Dr. Wilson said over-all capacity is more than 5,600,000 b/d and runs about 5 million b/d maximum, with most of the surplus capacity badly located from a transportation viewpoint. However, this surplus also represents partially or wholly obsolete facilities from the standpoint of being able to meet present quality standards or inability to handle high sulfur crudes.

Operate at 88.7% Capacity

NEW YORK—Refineries in the United States operated at 88.7% of rated capacity during the week ending May 24, according to API statistics released May 28. This is the highest percentage since the week ending March 15 when the figure was 89.7%.

Text of Van Covern's Analysis of U.S. Refining Capacity and Supply

By FRED VAN COVERN,

Director of Department of Statistics, American Petroleum Institute

One of the first things that came to mind in contemplating the preparation of this paper, is the very complete group of operating statistics available to the petroleum refining industry. I believe that the information currently available to you is as timely and complete as in any industry, anywhere. Not only does the Bureau of Mines of the Department of the Interior compile and release a very detailed group of annual and monthly summaries of operations, but important weekly figures are available through the American Petroleum Institute.

The present API report is the result of years of effort to provide those interested with an up-to-date and reliable statistical statement on current operations. It is published each Wednesday afternoon and released through all national press wire services, and through the trade press. The items shown include crude runs to stills, principal product output during the week, and inventories of those products at the close of that week. Currently refiners operating about 87% of the total capacity of the country contribute to this report.

The portion of the industry participating should increase shortly, if the response we have had to a recent invitation to those not now reporting, that they also join in this effort, is a clear indication of the reception accorded these figures.

There is one point in connection with that report which I again should like to try to clear up, and that is the erroneous impression that some people still seem to have, that we report only for the portion of the industry that sends figures to us. True, we do not get detailed information from all refining companies, but through a somewhat involved procedure which we call a differential method, we do include thereby in the totals shown, an estimate covering non-reporting refiners. This makes our figures directly comparable with those later published by the Bureau of Mines. How successful that method has been will immediately become apparent through comparison of the two sets of figures.

Incidental to the information just referred to, because we think it interesting and informative, are the refinery capacities reported to the API. These we compile and use in order to indicate the percentage rate at which the plants of the country are being operated from time to time. The present rate is high and you men know without my saying so that operations must remain high if enough products are to be available.

Refers to Interstate Compact Report

In that connection, I should like to refer to the recent report of the Economics Advisory Committee of the Interstate Oil Compact Commission presented at Birmingham, Ala., on April 24, and particularly the references to demand, crude oil production and refinery runs. I quote:

> "The Committee estimates that the 1947 petroleum demand in the United States, including about 400,000 b/d of exports, will be 5,700,000 b/d, an increase of 7% over the demand last year. Some allowance has been made for a slight recession in business activity during the latter part of 1947. The effect of a business recession on petroleum demand this year is anticipated to be small because there is generally a lag in the influence of such recession on petroleum demand and because of the upward trend created by new oil-using equipment, such as automobiles, trucks, tractors, Diesel engines, and oil burners. If a sharp business recession develops soon, or if next winter is warmer than normal, demand may be less than estimated in the present forecast. On the other hand, demand may be higher if business activity continues at present levels or if next winter is unusually cold. The forecast assumes that the weather next winter will be normal, and is subject to adjustment in case of colder or warmer weather."

Perhaps the most significant single thing indicated in that report aside from the expected continuation of increasingly high levels of demand is the almost complete disappearance of former large surpluses. Times have changed in the petroleum industry. Refining capacity would, however, appear to be sufficient under normal expectations and there is still some crude oil available above the current rate of production.

The real question is the economic availability of what surplus still exists to those areas in short supply as limited by present transportation facilities.

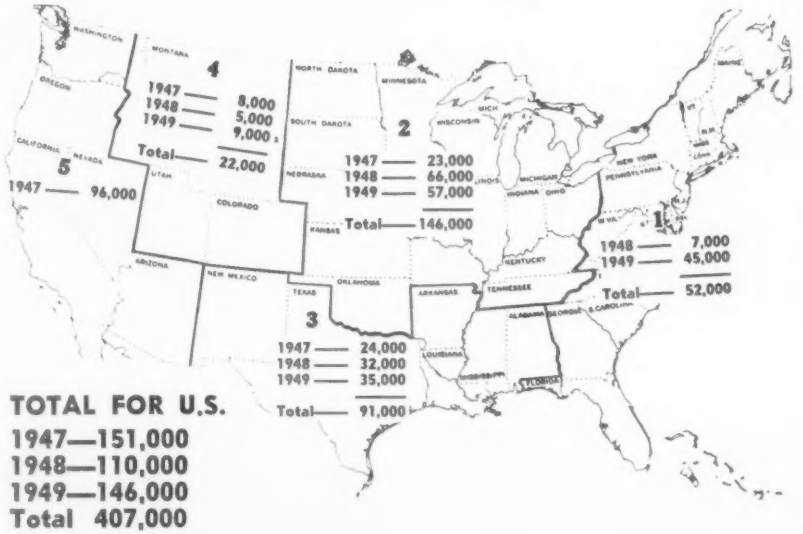
Need 5,035,000 B/D Runs to Stills

In translating the expected level of demand into domestic crude oil production requirements and necessary runs to stills, the Advisory Committee arrived at the conclusion "that 5,000,000 b/d (crude oil production and runs) will be required for the next 12 months to meet demand as estimated," and from the detailed tabulations attached to the report and the working papers we find that average required runs to stills during the coming six months are 5,035,000 b/d and probably 5,080,000 b/d during the first quarter of 1948. The report further states that, "it may be noted that a small variation of 2% in demand means over 100,000 b/d, a quantity substantial enough to affect many consumers in the present situation where the industry may not have the capacity to make a deficit of this magnitude."

Let us first consider these figures in

New Refining Capacity Proposed or Building

(Figures in barrels daily)



relation to available refining facilities and recent actual levels of runs to stills. The capacity figures in Table 1 are those of the API strengthened recently through questionnaire sent to the industry. We also took into account all other information available to us. The definition used was that of the Bureau of Mines: "the maximum daily average throughput attainable under normal conditions with allowance for downtime, cleaning, inspections, repairs and breakdowns. Normal conditions imply contemplated grades of crude for contemplated types of products finished to the extent customary to that refinery."

You will agree that no single figure can give a true picture of refinery capacity because the latter is bound to be greater for certain types of crude than for others. Daily capacity will also vary depending on whether a plant is being operated for maximum gasoline or high yields of middle distillates and residual fuels. In some cases, notably the East Coast, it will vary as the proportion of the supply of different crudes, domestic and foreign, vary in relation to the total available.

Some of the capacity included in Column 2 (Table 1) is, of course, of the skimming plant type, which operating by and of itself can hardly compete in making the kind of gasoline that today's markets demand.

However, where high quality blending stocks are available and crude is nearby, skimming capacity can be helpful under the operating and economic circumstances which exist today. Otherwise such capacity would be useful only under emergency conditions.

The rate of crude processed was at a low level as the second quarter began, and during the four weeks ended May 17, was about 170,000 b/d less than the Compact Committee's calculations.

Districts 2 and 3 were behind,—the former doubtless because of lack of new crude and transportation with which to bring it in from other areas, as well as strikes, and the latter district mainly because of strikes.

District 2 crude stocks are also showing the effects of this condition, having declined considerably during the last year.

On the other hand, District 3 crude stocks have been increasing because of strikes and Texas City. Table 2, shown above, brings out the runs to stills comparisons referred to.

The effects of the Texas City disaster on refinery runs were not as great as at first thought. Up to about a week ago when this paper was finalized about 1,500,000 bbls. of crude runs had been lost. The actual loss otherwise in finished products and crude was of course much greater.

Strikes Cost 12,038,000 Bbls.

Labor difficulties have been a larger factor in the current supply situation than generally realized. At one time last month (May) 220,000 b/d refining capacity was shut down because of such disturbances. Up to a week ago the total 1947 loss in crude runs was an estimated 12,038,000 bbls., and if labor had seen fit to continue work while discussing contracts, that much more crude oil would have been run this year so far, and the product supply situation helped correspondingly.

Some of this loss has doubtless been made up through processing arrangements with others, and some may be made up as a result of increased runs, where possible, between now and when the products are needed. The fact remains, however, that supplies for important consumer and industrial areas are behind to the extent of most of this curtailment. Also the refining facilities, that will later have to be used to make it up, could otherwise have been devoted to building available supplies to still higher levels. Transportation of these additional products when they are made, to where they will ultimately be required, will also create additional problems.

The questionnaire referred to earlier also asked the following question: Expressed in terms of daily crude oil throughput, is your company; 1—Now constructing new refining capacity; 2—Are any additions or charges being made at present plants that will result in additional throughput; and 3—What are the probable dates on which this new capacity will begin operating.

As this was completed 49 companies (out of the 60 asked) representing about 4,485,000 bbls. of the March 31 daily refining capacity, or 80% of the total of the country as of that date, reported new construction to be completed by Dec. 31, 1949 to the extent of 407,000 b/d, of which 100,000 b/d is marked for replacement. Table 3, which follows, indicates this new construction by districts and periods of completion.

Up to this point, consideration has been given mainly to the question of refinery capacity. While over-all country-wide availability would appear to be sufficient, and the same holds true in the case of the individual refining districts during the period under consideration, the amount of new capacity being constructed is surprisingly low. This is doubtless due both to high construction costs as well as to a lack of materials.

Of course the normal development of

TABLE 2

Refining District	Compact Committee Crude Runs Required 1st Quar. 1948 (1)	2nd Quar. 1947 (2)	Actual Crude Oil Run to Stills: *Actual Average 4 Weeks Ended May 17 (3)		Individual District Monthly Highs Since 1/46 (4)	U. S. High Post-War (August 1946) (5)
No. 1	890,000	880,000	904,000	(908)	889,600	849,000
No. 2	1,340,000	1,300,000	1,261,000	(1,286)	1,269,300	1,245,000
No. 3	1,900,000	1,865,000	1,697,000	(1,888)	1,879,300	1,861,000
No. 4	130,000	125,000	121,000		128,400	116,000
E. of Calif.	4,260,000	4,170,000	3,983,000	(4,203)	4,166,600	4,071,000
No. 5	820,000	810,000	829,000		806,500	785,000
U. S.	5,080,000	4,980,000	4,812,000	(5,032)	4,973,100	4,856,500
			220,000			
			5,032,000			

*During the four weeks ended May 17th, a daily average of 200,000 b/d runs were lost on account of strikes and about 20,000 b/d because of Texas City.

TABLE 1

Operating and Shut-Down Refinery Capacities vs. Required Runs to Stills

(Daily Averages in Barrels, as of March 31, 1947)

Refining District	*Capacity of Operating Refineries (1)	Non-Operating Capacity (2)	Total Cols. 1+2 (3)	Runs to Stills Econ. Comm. (Jan.-Mar. 1948) (4)	†Per-Cent of Capacity (5)
No. 1	941,700	5,500	947,200	890,000	
No. 2	1,387,700	50,500	1,438,200	1,340,000	92/89
No. 3	1,833,200	274,600	2,107,800	1,900,000	
No. 4	168,500	5,300	173,800	130,000	
E. of Calif.	4,331,100	335,900	4,667,000	4,260,000	91/88
No. 5	909,000	35,000	944,000	820,000	
U. S.	5,240,100	370,900	5,611,000	5,080,000	91/88

Notes: *On March 31, 1947, there were about 175,000 b/d of capacity shutdown on account of strikes which is not included in this column. It is included in Column 2—(District No. 1—5,500; No. 2—20,400, and No. 3—140,000 b/d).

†The figure at the left is the per cent that Column 4 is of Column 3. The figure at the right is the percentage relationship as of March 8—before strikes.

TABLE 3
New Construction as Reported by 49 Companies

(Daily Throughput—Barrels 42)
Capacity Expected to Begin Operating In:

Refining District	1947 2nd Q.	1947 3rd Q.	1947 4th Q.	1948 1st Q.	1948 2nd Q.	1948 2nd Half	1949 1st Half	1949 2nd Half
No. 1	....	....	....	.	....	7,000	40,000	5,000
No. 2	....	23,000	....	23,000	....	†43,000	50,000	7,000
No. 3	4,000	20,000	....	20,000	12,000	....	35,000	....
No. 4	2,000	6,000	....	2,000	....	3,000	9,000	....
E. of Calif.	6,000	49,000	....	45,000	12,000	53,000	134,000	12,000
No. 5	6,000	*90,000	....	....	....	....	....	....
U. S.	12,000	*139,000	....	45,000	12,000	†53,000	134,000	12,000

*Includes 85,000 said to be for replacement.
†Includes 15,000 said to be for replacement.

the industry was held back during the war and the million barrel daily crude oil producibility above requirements, which existed before hostilities began, has been absorbed by war needs and an expansion of civilian demand.

Materials of all kinds were short and are still short—but demand for products is higher;—in the first quarter of this year, 5% above the wartime record demand which occurred in the first quarter of 1945.

The demonstrated dependability, cleanliness and convenience of handling and using oil as against other fuels, and the large amount of favorable publicity received as a result of the industry's enviable wartime supply record, stand high among the things that have contributed to the present increasingly popular acceptance of petroleum. All of these are seemingly exerting maximum influence at a time when the industry is still handicapped as a result of the war, and a lack of time, personnel and the equipment necessary to rebuild and expand.

Record Crude Oil Production

The Compact Committee's 5,000,000 b/d crude oil production requirement indicated for the next nine months is on the Bureau of Mines' basis which means that it includes about 40,000 b/d of condensate which is transported in crude oil pipelines and therefore mixed with it. That requirement figure on a crude oil only basis therefore becomes about 4,960,000 b/d and compares with the API figure of 5,008,050 b/d for the week ended May 17, a new all-time high for any one week.

Because the information that is available on inter-district movements of crude oil is not as up to date as desirable, nor as complete, it was thought better, in order to gain an understanding of the situation by districts, to proceed on a basis of elimination through the use of the following Crude Oil Summary in which the API May 17 production rate is used. See table 4.

This summary indicates that California needs no special comment. Even though 50,000 b/d of crude may be transferred direct to fuel oil and exports may continue at about 19,000 b/d (current and past average rates) present crude oil production levels cover estimated refinery requirements for the period.

In the entire area east of California crude oil available as refinery runs total 4,296,650 b/d. Allowances were also made for transfers, imports and exports of crude. That figure compares with 4,260,000 b/d refinery runs required, indicating the area as a whole to be covered from a crude oil supply point of view on a normal demand basis. This is further supported by the following reply to an inquiry addressed to Col. Ernest O. Thompson, chairman of the Railroad Commission of Texas, from which I quote:

> "West Texas can easily produce an additional 165,000 bbls. of crude per day and balance of the state an additional 65,000 bbls. crude daily, making total conservative additional capacity of Texas crude m.e.r. ability of 230,000 b/d over present rate of 2,183,500 bbls. crude alone."

In Louisiana probably very few fields could stand sustained increased allowables without exceeding m.e.r's.

Going back to the table again, District 4 shows about 44,000 b/d crude oil supply over runs. Districts 1 and 3 combined (in which for the purpose of compiling this table the southeastern portion of New Mexico has been included), have another 435,000 b/d, or a total of about 430,000 b/d over required runs in these three areas. District 2 had net crude available during the week of May 17 from its own production of 898,000 b/d as against forward runs in the area of 1,340,000. If all of this indicated overage above normal demand requirements of other areas could be moved to District 2, the latter's availability would be 1,378,000 b/d, more than enough to cover its refinery requirements, but can these current overages all be moved into District 2

TABLE 4
Estimated Crude Oil Summary
First Quarter 1948 on Basis of Production Rate Week May 17

(Barrels 42—Daily Averages)

Refining District	A.P.I. Crude Production Week May 17 (1)	(*) Probable Imports (2)	(*) Probable Exports (3)	(*) Crude Used Direct or Transferred (4)	Approximate Availability as Runs (5)	Crude Runs Compact Comm. 1st Qtr. 1948 (6)
No. 1	57,200	288,000	8,000	....	.....	890,000
No. 2	953,700	.....	46,000	10,000	.....	1,340,000
No. 3	2,910,000	2,000	16,000	8,000	.....	1,900,000
	3,920,900	290,000	70,000	18,000	4,122,900	4,130,000
No. 4	178,750	.....	3,000	2,000	173,750	130,000
E. of Calif.	4,099,850	290,000	73,000	20,000	4,296,650	4,260,000
No. 5	908,400	.....	19,000	50,000	839,400	820,000
U. S.	5,008,050	290,000	92,000	70,000	5,136,050	5,080,000

(*) Compact Committee's report.

in present facilities? Of course the answer is no!

Before carrying this thought further, I should like to present a few pertinent figures.

During the year ended March 31, 1947 the district's refineries were operated at a daily rate of 1,232,000 bbls.

Crude oil stocks decreased from 82,320,000 bbl. on March 31, 1946, to 69,025,000 bbl. on March 31, 1947, or 13,295,000 bbl.—30,000 daily.

Stocks of principal refined products were 46,783,000 bbl. on March 31, 1946, and 42,781,000 bbl. on March 31, 1947, down 4,002,000 bbl.—11,000 daily and those who operated in that area last winter will have an opinion as to whether these product stocks were high or low.

During the year referred to, all crude oil and product lines and other transportation into the district were being operated at capacity, and I think daily crude capacity is about 330,000 bbls. during any reasonable time period. Crude production in the area was at a maximum—940,000 b/d.

If forward runs are 1,340,000 b/d, and if a rate of 1,232,000 caused crude withdrawals of 30,000 b/d, and 11,000 b/d of principal products during the year ended March 31 last, about 150,000 b/d more of crude or products are required in the area to arrest the downward trend of crude stocks. If that additional amount were to begin to move into the area immediately and be run to refineries, normal seasonal rates of accumulation of products would take place but more is necessary if the depleted levels of working stocks on March 31, 1947, and worse, are not again to be experienced. If the indicated additional amount of crude and products are not moved into the area, and the only way they could be moved now is by tank car and barge, seasonal buildup will be lacking, and the consequent difficulties experienced.

New pipeline projects to bring more crude into the area have been announced notable among which are the proposed 150,000 b/d 22 in. from Midland; the 20 in. from Corsicana to Patoka, Ill., and the looping of an existing line. Whether these can be completed and operating in time to be of help next winter remains to be seen, but they will have to be if the district is to obtain the crude it needs.

East Faces Tanker Shortage

On the East Coast a serious situation has threatened to arise as a result of impending developments in the tanker transportation situation. Before the war there was always a so-called "free" tanker market in which tankers could be charted from independent ship owners, both foreign and domestic, for marginal requirements involving a voyage or two, or for a relatively short period. Since the war the so-called "free" tankers are very limited in proportion to the total requirements mainly as a result of war losses in foreign flag tonnage, and much of the independent tonnage is taken up on long-time contracts, leaving very few available for spot chartering.

Currently a worldwide shortage of tonnage has been relieved by government-owned ships being made available by the Maritime Commission under a general agency agreement. This arrangement is due to expire on the 30th of this month when the authority under which the Maritime Commission now operates expires. If the general agency agreement is eliminated without the creation of anything to take its place, worldwide availability of tanker tonnage would be reduced by approximately 25%, and although this would primarily affect foreign markets it will unquestionably have its repercussions on the United States Eastern Seaboard.

Hearings have been held recently before a Subcommittee of the House Merchant Marine and Fisheries Committee in an effort to resolve this situation. The outcome is of real importance to the East Coast.

SUMMARY

1. Demand for products is at an all-time high rate and the long-term trend is up.

2. Crude oil producibility is great enough to cover the country's current requirements and those of next winter under normal weather conditions. There doubtless will be a number of cases, even so, where given companies will be short.

3. Refinery capacity is currently sufficient in all areas. However, the amount of new construction being done is small in comparison with the probable trend of demand. High costs, shortages of steel and other materials are doubtless discouraging factors.

4. District II needs more crude. Crude and product stocks are lower than seasonally desirable and must be built up at a high rate this summer. Otherwise the situation next winter will be difficult. Uneconomic, costly railroad movements are already taking place. Local areas of shortage may arise at any rate—particularly if the winter is colder than normal. Transportation is the district's big problem.

5. Much depends on whether new lines into the area can be completed and operating soon enough. Operators will, even so, have to resort to increased use of tank cars and barges. Speeding up of drilling campaigns is also essential.

6. In other areas storage capacity will be taxed to the limit. Householders in the northeastern section of the country, as well as dealers and distributors, could relieve industry storage by having their own tanks filled this summer. Deferred billing might act as an incentive to do this.

7. Subnormal temperatures next winter, particularly if there is no recession in business, would bring about added difficulties. Some inefficient and uneconomic capacity would have to be brought into use. Given areas and even companies will be short.

8. Labor disturbances curtailed refinery runs more than 12,000,000 bbls. from Jan. 1 to May 26, and some of these costly strikes are continuing. The supply of products has therefore been reduced by close to this amount.

9. The transportation outlook for the East Coast would be greatly improved were the present general agency arrangement now in effect through the U. S. Maritime Commission, continued by legislative act beyond June 30, or some other arrangement created to take its place.

10. Beyond March 31, 1948,—more of the same everywhere; still no apparent surpluses. Production, refining, transportation and marketing facilities, all will be incapable of carrying the load unless enlarged. Time, increased personnel, large expenditures and equipment are necessary to rebuild, improve and expand. I am sure, however, that the industry with its brilliant background of accomplishment can do the job if it can obtain the necessary supplies of steel and other materials.

Truman Seeks Four-Year Extension of Oil Compact

NPN News Bureau

WASHINGTON — President Truman June 2 asked Congress to extend Interstate Oil Compact for a four-year period, from Sept. 1, 1947, to Sept. 1, 1951.

"The increasing membership in this compact," he said in message to the legislators, "is especially encouraging at this time, in view of the necessity for the conservation of our resources of oil and gas." Mr. Truman noted that original compact, first ratified by six states in 1935, now has membership of 16 states.

Compact has been renewed and extended three times for two-year periods and once for four-year term. Present expiration date is next Sept. 1. Current memberships include states of Alabama, Arkansas, Colorado, Florida, Kansas, Louisiana, Montana, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, Texas, West Virginia, Tennessee and Indiana.

Legislation to carry out the President's recommendation was introduced simultaneously in both houses by Sen. Hatch (D., N. M.) and Rep. Johnson (D., Okla.).

Oklahoma Allowable Raised

OKLAHOMA CITY—Oklahoma Corporation Commission has set total June crude allowable at 385,000 b/d, over April-May figure by 6,575 bbls. Eight pools were added to proration list and two were removed, according to commission spokesman.

Newly elected LPGA President Tallant H. Ransome, Ransome Co., Emeryville, Calif., is shown here congratulating past presidents, who were presented with gavels and certificates of service. Left to right are: Mr. Ransome, Charles O. Russell, Thermogas Inc., Des Moines; Ernest Fannin, Fannin's Gas & Equipment Co., Phoenix, Ariz.; Louis B. Bramson, Jr., Petrolane Corp., New Orleans; George W. Bach, Skelly Oil Co., Kansas City; J. Woodward Martin, LP Gas Equipment Co., Dallas, Tex.; and H. Emerson Thomas, Fuelite Natural Gas Co., Westfield, N. J. Unable to be present at time photo was taken were Mark Anton, LPGA's first president and Walter J. Verkamp, Verkamp Corp.

1,000 LPG Men at Meeting Set Sights Toward Balancing of Supply, Demand

Two-Day Meeting Told of Unlimited Public Acceptance Of LPG As Future Expansion of Industry Is Discussed

By EARL LAMM
NPN Staff Writer

CHICAGO—More than 1000 liquefied petroleum gas producers, distributors and equipment manufacturers attending the annual convention of the Liquefied Petroleum Gas Assn. at the Sherman Hotel here May 27-29, set their sights on bringing today's short supply and big demand into balance, and to further expand both.

Howard E. Felt, vice president, Warren Petroleum Corp., Tulsa, in an address on fuel supply on Thursday, told the convention that LPG apparently has an unlimited public acceptance for its many uses, and that it is dangerous to count on supplies without adequate planning.

These two lessons and another that should be learned from past experience with shortages, he said, is that full use must be made of propane, either as such, or in higher vapor pressure mixtures. New uses for LPG and expanding old uses, he continued, are developing more rapidly than available supplies can reach thirsty markets. (The text of Mr. Felt's paper is published in this issue of National Petroleum News, starting on p. 49.)

Tells of Steel Supply

The steel situation, which affects equipment and appliance manufacturers and ultimately the marketing of LPG, was discussed in an address by Bennett S. Chapple, Jr., assistant vice president of U. S. Steel Corp. of Delaware.

"Barring unforeseen interruptions," he said, "it would appear that certainly by the end of this year, and possibly before, many products will have come into proper balance. When this happens on a large enough scale, American business will once again be operating within the fundamental principles of the law of supply and demand."

Prewar, he said, ingot production capacity of steel mills was 80 million tons annually and has been increased to 92 million tons. Finishing capacity, which does not operate at 100%, was given as 150 million tons, of which 16 million tons is sheet capacity, but output was cut back to 14 million tons in 1946 because of strikes, the speaker said. The sheet finishing capacity is being stepped up to 19 million tons, one million of which it was estimated would be added this year with the remaining two million to begin operations in 1948.

Report on Transportation

Another bottleneck in the LPG industry that at times threatened to strangle it is transportation, and LPGA's Transportation Committee, chairmanned by George W. Bach of Skelly Oil Co., reported on the shortage of tank cars and efforts to secure a 29% reduction in rates by an adjustment in estimated shipping weight of LPG from 6.6 lbs. per gallon to 4.7 lbs. Contributions were solicited for the freight rate reduction fund of $20,000. About one third of that amount has been paid in already.

The only immediately favorable factor concerning tank cars, the committee said, is that the raid of the fertilizer-chemical industry against LPG cars apparently has been checkmated. Recent figures, the committee continued, showed that 2,534

cars are in LPG service and 963 are in anhydrous ammonia service, and a rough estimate indicates that approximately 500 new cars have been delivered for LPG use since last year.

"This supply of new cars should be weighted against an over-all industry need of 1,500 or 2,000 new cars this year," according to the committee. "It is impossible to predict how long the scarcity of cars will have an effect on the expansion of the industry. Some estimates today indicate that the manufacture of pressure cars will not parallel our need before the end of 1948.

"It is recommended, wherever feasible," the committee continued, "that serious consideration be given to the substitution of highway transport for rail cars.

"There is not now, or can we foresee, any letup on the part of rail and motor carriers in their efforts to increase their freight rates on LPG, both tank car and LCL, although the LCL rates are fortunately becoming less and less a critical factor, and carriers themselves have caused the industry to turn to other methods of transportation for cylinders, etc., because of high rates."

A third major rail rate fight involving LPG, the committee said, will take place this year in Official Classification Territory, which roughly is east of the Mississippi and north of the Ohio rivers. The other two contested cases are the Green Fuel case in Southeastern Territory, and the Montana-Dakota Utilities case involving shipments from the Southwest into Middle Western states.

The Green Fuel case has been won, and ICC examiners have reported favorably on the Montana-Dakota case, but no decision has yet been made; however, keystone in future rate litigation is the case in Official Classification Territory, the committee said.

"A favorable decision for the industry," the committee explained, "should go a long way toward the establishment, universally, of the 4.7 factor which we need to move our commodity economically and competitively."

Emphasizing the importance of the case, producers, distributors and consumers of LPG were called upon by the committee to contribute to a $20,000 fund for legal and other expenses in handling the case. Approximately $7,555 has already been paid in, and J. V. Norman, attorney from Louisville, Ky., and Bell & Ussery, rate experts, have been retained to handle the case, which has possibility of saving shippers as much as 29% on freight rates.

Organize Marketing Section

Richard Verkamp, Verkamp Corp., Cincinnati, O., was elected chairman of the newly organized Marketing Section, but was unable to attend the open forum held on Wednesday afternoon.

During the roundtable on marketing, a resolution was authorized calling upon manufacturers to allocate a larger percentage of their output of gas ranges to LP-gas, as several marketers said that not all of the natural gas ranges now being made were being sold because of the shortage of natural gas, which they asserted is proportionately greater than the shortage of LPG. It was reported that range manufacturers are still working on 1940-41 prorata percentage of production basis, with most of their output of ranges going to the public utilities.

If 500 or 600 more new tank cars can be made available before next winter, some of the marketers felt the industry would be able to handle the winter peak heating load satisfactorily. It was pointed out that there is very little LPG production in the northeast and north central states, none in the southeast, and that the main source of supply was therefore the Southwest—a long haul for many marketers, which slowed up the tank car turnaround and made more cars necessary. It was also revealed that some marketers were permitting tank cars to set on rail sidings for a day or two after unloading, and suggestion was made that they urge the railroads to pick them up immediately. There were also some complaints about products being shipped in tank cars, which had previously been un-

T. H. Ransome Named LP-Gas Assn. President

CHICAGO—Newly elected officers of LP-Gas Assn., as result of balloting during the annual convention last week, are: president, T. H. Ransome, Ransome Co., Emeryville, Calif.; first vice president, Walter Naumer, Carbide & Carbon Chemical Co., New York; second vice president, E. G. Gustafson, Town & Country Gas Co., Sioux Falls, S. D.; treasurer, C. O. Russell, Thermogas Co., Des Moines, Ia.; secretary and assistant treasurer, Arthur C. Kreutzer. H. D. White continues as executive vice president.

Chairman of the four newly created sections of the association are: Richard Verkamp, Verkamp Corp., Cincinnati, O., for Marketing Section; Lloyd C. Ginn, American Stove Co., New York, Appliance Manufacturers Section; K. R. D. Wolfe, Fisher Governor Co., Marshalltown, Ia., Equipment Manufacturers Section; H. W. Rigterink, Sun Oil Co., Solgas Div., Philadelphia, Producers Section.

Directors elected are:

Section 1 (North Pacific)—Carl Hopp, American Pipe & Construction Co., Steel Tank & Pipe Division, Portland, Ore.

Section 2 (South Pacific)—D. D. Parrington, Calor Gas Co., San Francisco.

Section 3 (Mountain States)—Lon Turner, Eaton Metal Products, Denver, Colo.

Section 4 (North Central)—E. J. Gustafson, Town & Country Gas Co., Sioux Falls, S. D.

Section 5 (South Central)—W. G. Petty, W. G. Petty & Son, Memphis, Tenn.

Section 6 (South Eastern)—K. H. Koach, Green's Fuel, Inc., Sarasota, Fla.

Section 7 (North Eastern)—Walter Naumer, Carbide & Carbon Chemicals Corp., New York, N. Y.

Alabama—Selwyn Turner, National Butane Co. of Alabama, Mobile.

Arizona—Ernest Fannin, Fannin's Gas & Equipment Co., Phoenix.

Arkansas—R. J. Dodson, Magnolia Butane Gas Co., Magnolia.

California—E. E. Adams, Hercules Butane-Propane, El Cajon.

Colorado—C. R. Hustead, Denver Propane Co., Denver.

Connecticut—F. S. Hyde, Scovill Manufacturing Co., Waterbury.

Florida—E. Reed Whittle, LPG Equipment Co., Orlando; K. H. Koach, Green's Fuel, Inc., Sarasota.

Georgia—W. B. Wight, Consumers Gas Co., Albany.

Idaho—C. V. Rothrock, Liquid Gas & Appliance Co., Twin Falls.

Illinois—T. E. Ennett, Rockford Propane Co., Rockford.

Iowa—R. L. Buckingham, Rapid Gas Corp., Cedar Rapids.

Kansas—S. G. Darling, Darling Gas Inc., Pratt.

Kentucky—P. G. Boyd, Airlene Gas Co., Fulton.

Louisiana—L. Abramson, Jr., Petrolane Gas Co., New Orleans.

Maine—Peter A. Anderson, Utilities Distributors, Inc., Portland.

Maryland—L. L. Parlett, Parlett Gas Co., Waldorf.

Massachusetts—W. F. Muhlbach, Florence Stove Co., Gardner.

Michigan—John Pankow, Detroit Michigan Stove, Detroit.

Minnesota—David Bailee, American Gas Machine Co., Albert Lea.

Mississippi—J. W. Gotcher, Gotcher Engineering & Mfg. Co., Clarksdale.

Missouri—George W. Ryan, Rural Gas Co., Kansas City.

Montana—J. J. Kirby, Treasure State Gas & Electric Co., Great Falls.

Nebraska—L. R. Forsyth, Omaha Blaugas Co., Omaha.

Nevada—H. W. Wickstrom, Las Vegas Gas Co., Las Vegas.

New Hampshire—W. S. Twohig, Yankee Bottled Gas Corp., Westville.

New Jersey—H. Emerson Thomas, Fuelite Natural Gas Corp., Westfield.

New York—George A. Burrell, Atlantic States Gas Co., New York.

North Carolina—W. S. Lander, Rullee Gas Co., Charlotte.

Ohio—G. Wright, Wright Gas Co., Mt. Orab.

Oklahoma—K. W. Rugh, Phillips Petroleum Co., Bartlesville.

Oregon—Carl W. Hopp, American Pipe & Construction Co., Steel Tank & Pipe Division, Portland.

Pennsylvania—H. K. Strickler, The Protane Corp., Erie.

Rhode Island—H. H. Dauphinee, Suburban Gas Co. of R. I., Inc., Providence.

South Dakota—E. J. Gustafson, Town & Country Gas Co., Sioux Falls.

Tennessee—W. G. Petty, W. G. Petty & Sons, Memphis.

Texas—Field Foster, Lone Star Gas, Dallas.

Utah—Orson P. Wright, Rocky Mountain Gas Co., Salt Lake City.

Virginia—E. O. N. Williams, Bottled Gas Corp. of Virginia, Richmond.

Washington—Stewart Matthews, Northern Gas Co., Inc., Seattle.

West Virginia—Paul E. Peacock, Jr. Martinsburg Gas & Heating Co., Martinsburg.

Wisconsin—Verne Mueller, Wis. Bottled Gas Co., Medford.

Wyoming—George Gibson, Midwest Skelgas Co., Lusk.

loaded with air pressure, and to avoid the accumulation of water in the cars, it was urged that vapor pressure be used for unloading in the future.

Progressive Step

In considering the balance out of supply and demand and the various industry problems involved, LPGA itself was brought into better balance by breaking its activities down on a departmental basis and creating a producers section, marketing section, equipment section and an appliance section, according to officials of the association. They believe this was one of the most progressive steps the association has taken for it will give each segment of its membership an opportunity to privately express itself, then the activities of all branches are to be coordinated at general meetings in the future. Independent distributors especially expressed the belief that the new setup will give them a larger voice in association affairs and bring greater harmony to the organization.

A budget of approximately $113,000 was adopted, an increase of $28,000 over last year's $85,000, and plans were made for expanding both industry and consumer public relations programs.

Back Public Relations Program

The oil industry's public relations program was endorsed by resolution, following an explanatory address of its purposes and procedure by Conger Reynolds, head of the public relations department of Standard of Indiana. In the resolution, LPGA pledged its support and cooperation in promoting the program.

In expanding its own consumer relations program, E. Carl Sorby of George D. Roper Corp., Rockford, Ill., chairman of the publicity and advertising committee, reported committee recommendation that contract with Lawrence H. Selz Organization, which handles LPGA's promotion work, be renewed, and that its monthly fee of $2,916.66 be increased to $3,750, or at the rate of $45,000 annually.

"This coming year and the ones which will follow," the committee chairman declared, "are going to be competitive years."

He said the promotion budget should be much larger than it is, and pointed out that during the last three years, LPGA copy had appeared in about 3,800 of the nation's 10,000 newspapers; that radio has been a successful outlet for LPG feature news, scripts of which go to 819 of the 900 radio stations; that a brochure, "The ABC of LP-GAS", has been distributed to 30,000 school teachers who are instructors in home economics, and that over 2,000 of them had replied that the brochures were being used in class room studies. LPG stories have also appeared in national magazines such as McCalls, Woman's Home Companion, Parents Magazine and in farm magazines such as Progressive Farmer.

S. A. Swensrud Named Executive Vice President Of Gulf Oil; Resigns Ohio Standard Position

Mr. Swensrud

Special to NPN

PITTSBURGH — Sidney A. Swensrud, executive vice president and director of Standard Oil Co. (Ohio), was elected executive vice president and member of the board of directors of Gulf Oil Corp. May 28.

In Cleveland, W. T. Holliday, Ohio Standard president, announced Mr. Swensrud's resignation "with regret" and said the office of executive vice president vacated will not be filled. Department heads previously functioning under the executive vice president will report directly to the office of the president.

Earl D. Wallace, vice president in charge of crude oil production, Standard Oil Co. (Ohio), has been elected a director, filling the vacancy caused by the resignation of Mr. Swensrud.

Mr. Wallace, a graduate of University of Kentucky in mining engineering in 1921, joined Sohio in 1942 as land and production manager in the crude oil production division. In 1946 he was made vice president in charge of production. prior to his affiliation with Sohio he was associated with Petroleum Exploration Co. and Wiser Oil Co.

Mr. Swensrud plans to assume his new duties in Pittsburgh June 16.

Born in Northwood, Iowa, Mr. Swensrud graduated at University of Minnesota with honors and a B. S. Degree in 1923. He began his business career that year with Washburn-Crosby Co. (now General Mills) at Minneapolis. In 1925 he left Washburn-Crosby to attend Harvard University Graduate School of Business, receiving his M. B. A. Degree in 1927. Following graduation he stayed on as a member of Harvard Business School Staff.

Mr. Swensrud became assistant to the president of Standard Oil Co. (Ohio) in August, 1928. He was made vice president in charge of production, supply and transportation in August, 1939. The following April he was elected a director and became executive vice president in 1946.

Mr. Swensrud served as a member of the Economics Committees of Federal Oil Conservation Board and API in the early and middle 1930's. He was vice chairman of the Petroleum Division Economics Section, American Institute of Mining and Metallurgical Engineers from 1935 to 1938. He also served as an oil industry witness for the marketing branch before the Temporary National Economics Committee in 1939.

During the war he served with Petroleum Industry Committees on Transportation, Supply and Economics for District II; also on Economics Subcommittee and Postwar Readjustment Committee of Petroleum Industry War Council. In addition he was vice chairman of National Refiners Advisory Committee to OPA, in charge of presentation of refined products price problems to OPA.

Following the war, he served on a committee for preparation and presentation of Material to the Special Senate Committee on Petroleum Resources of U. S. and presented the testimony before this committee on disposition of Big Inch pipelines.

At present Mr. Swensrud is a member of API's Transportation Committee, Pipeline Study Committee and District II Public Relations Committee; also a member of Economics Advisory Committee of Interstate Compact Commission.

Richard W. French has been named assistant to Earl D. Wallace, vice president in charge of production department. Standard Oil Co. (Ohio). He will also serve as chief engineer.

Mr. French will take direct charge of the production department's staff organization of engineers. He will co-ordinate the work on all engineering problems for the company and assist Mr. Wallace in operating problems and policies. He will have charge of Sohio's Oklahoma City production laboratory where his office will be located.

Mr. French was with Continental Oil Co. for 14 years prior to joining Sohio and was production engineer in California from 1936 to 1943. In the latter year he became assistant manager of production and drilling department of Continental in Ponca City.

He was chairman of the Engineering Committee of PAW Production Committee in California for Dist. 5 in the early years of the war.

Here are some of the spark plugs of the young but lusty Pennsylvania Petroleum Assn. Left to right: Grover R. Dale, executive secretary, Harrisburg, Pa.; C. R. Harned, C. R. Harned Oil Co., Allentown, Pa., director; Roy Raylston, Jr., Hidlay Oil Co., Bloomington, Pa., director; Herman E. Oberman, Keystone Oil Products, Camp Hill, Pa., secretary; L. H. Setzer, Setzer Petroleum Co., Camp Hill, Pa., association president; M. D. De Tar, Aero Oil Co., New Oxford, Pa., director; Philip P. Peters, Pennsylvania Independent Oil Co., Allentown, Pa., treasurer. The association has 25 directors from all sections of the Keystone state

300 Oil and Equipment Men Attend 2nd Penna. Petroleum Assn. Meeting

Convention Hears Discussions on Shortages, Jobber Margins and Public Relations Program

By HERBERT TAYLOR
NPN Staff Writer

BEDFORD SPRINGS, Pa.—More than 300 oil and equipment men attended the second convention of Pennsylvania Petroleum Assn. here May 26-27. The association, organized last August with 15 members, at its first full-dress meeting presented a program that older Independent organizations would have been proud to sponsor.

Guest speakers included: Gordon Duke, president of Southeastern Oil Co. and chairman of the National Council of Independent Petroleum Assns.; Franklyn Waltman, public relations director, Sun Oil Co., and chairman of API Public Relations Committee; Frank W. Lovejoy, sales executive, Socony-Vacuum Oil Co., New York, and James E. Gheen, after dinner speaker and humorist.

Mr. Duke discussed the functions of the National Council and the jobbers' and distributors' future outlook. He discussed the three principal problems facing Independents today—(a) shortages, present and impending, (b) inadequate margins, and (c) giving away of equipment.

He said that shortages probably will be met, but added that little firms might take the brunt of the "solution." Watch the majors suddenly start discovering that their "netbacks" are too low, he warned. This is one of the problems which the National Council has tackled, he observed. He denounced strikes in the industry and declared that he hoped the government would find a way to keep the refineries going.

On the matter of distribution of products, Mr. Duke pointed out that the operators getting the "rawest deals" were the "floater" type of buyer—those with no contracts who have bought on open market. They are, and will continue to be, the hardest hit, he declared.

Duke Discusses Margins

Discussing margins, Mr. Duke contended that it did little good for jobbers to cry on the shoulders of their suppliers if the suppliers based their prices on those of the reference seller. As a general rule, he avowed, the reference seller is one who usually finds it unnecessary to work through jobbers. Mr. Duke observed, however, that there were some signs from the policy-making men in the majors that if jobbers will come up with some real facts, relief of some kind may be forthcoming. But he emphasized that the facts must be produced and indicated that the council was working in that direction, though it is handicapped by lack of a paid staff—a program now under way and which would include a statistician.

Mr. Duke revealed for the first time that he is considering taking a leave from his own company, Southeastern Oil Co., to devote his efforts to the Independent Council organization which he heads.

He insisted that he had no quarrel with bigness in business except when it comes to economic power. Then, he said, he was against it, "not only because it hurts us little fellows, and will, if continued, wipe us out, but because eventually it will wipe out everybody, the majors included, by getting us in the yoke of government control."

The trend of American industry is to resolve itself into just a few giant units in each line, Mr. Duke declared. He emphasized that oil men must oppose such trends, which, if not dealt with, will lead to the nationalization of the industry. He went on to say that since there are 34,000 companies in the oil business in America and since less than 30 run it, he had always felt that, primarily, the responsibility for leadership belongs to these 30. But, he contended, the matter of opposing the nationalization of the oil industry is a job which only little fellows can do successfully. He declared that small business needed the help of the majors, but small business men are the only ones who can keep industry a private enterprise business.

Speaks on Public Relations

Franklyn Waltman, addressing the second day's meeting, declared that the reason the oil industry embarked upon a public relations program was to preserve the oil industry—all parts of it.

Problems of petroleum forgotten for the moment, this group of Pennsylvania oil men took it easy on the hotel porch while their more rugged friends played golf during the recreational period at the PPA convention at Bedford Springs. Left to right are: Zach Way, Aero Oil Co., Lancaster; George William, Tide Water, Philadelphia; Roy Magnelli, district manager, Gulf Oil, Allentown; Benjamin Ellinger, Gulf Oil, Harrisburg, and Alvin Jones, Aero Oil Co., Lancaster

small units as well as large ones—as a free, competitive enterprise. He said that the program was adopted for the industry as a whole and merited the support of Independent jobbers. He said that if the competitive enterprise system was to be preserved, oil men must move as a united industry in presenting their case to the public.

Mr. Waltman warned the Keystone state jobbers not to be misled by whispers asking: "What are you getting out of it?" for all oil men are a part of the industry, and all in it shall rise or fall with it.

"Let us stop besmirching a great industry for the faults of a few," said the speaker, adding, "If we have intra-industry grievances, let us fight them inside the industry, directly with our suppliers or where the fault may lie. But do not in the meanwhile pull down the house that shelters all of us."

Mr. Waltman noted that there have been encouraging stirrings in many quarters, quite independently and growing out of an increased desire for better understandings that has been generated throughout the industry as a result of this public relations effort.

These stirrings point to better intra-industry relations, the public relations chairman declared. He said that lest his hearers felt he was being subjective, rather than objective, he would refer them to the editorials of "that doughty old warrior, Warren C. Platt, in the NATIONAL PETROLEUM NEWS. "There you will see," Mr. Waltman opined "evidence of what can be accomplished when our industry embarks upon a program for the full, frank and accurate dissemination of information regarding oil's activities. There is the answer in words of action to those who have preached that resort to government bureaucrats is the only refuge for the small man in this industry."

Mr. Waltman reported that distribution of the brochure containing advertising copy and other suggestions as to how oil companies can tie into the program (NPN May 7, p. 16) was under way and that another brochure would be available when a limited national advertising campaign gets under way.

The speaker emphasized that while the program was organized under API sponsorship, it is an industry-wide program, open to every individual in the oil industry, for the benefit of all. Mr. Waltman urged the jobbers to offer their services to the state and county committees and give them full co-operation.

Sees Shortage Problem Being Solved

Mr. Lovejoy, who was introduced by Hugo V. Spitzer, Allied Oil Co., Philadelphia, attributed the anticipated shortages of products in the Pennsylvania area to an element of fear born of hearsay. He said there had always been predictions of shortages that never materialized. The fuel oil shortage, he declared is a result of a combination of circumstances, following the successful war effort of the petroleum industry. He pointed to the fallicies of economists, and observed that none of them had predicted an increase in gasoline consumption. Fuel oil shortages were caused by unanticipated demand for oil burners and space heaters, he said. The present supply situation is not a shortage in the sense that there has been any failure to produce, Mr. Lovejoy asserted. The industry today is merely in a "tight situation." This he insisted will be overcome by refiners changing methods of refining and perhaps distributions.

Mr. Lovejoy told the oil men not to get too much concerned about shortages and do a lot of condemning until they were familiar with all the facts. He observed that jobbers would be better off if they concerned themselves more with selling than worrying about the petroleum shortage, which will—he predicted—be settled. He emphasized that there was a stringency of fuel oil now, but not a shortage, and pointed out that refining methods were being improved to take care of the situation.

"The petroleum industry always has come out on top, and always will," Mr. Lovejoy insisted. Get out and start selling yourself and your products, he went on to say, adding that markets are minds, and good will is based on what the public thinks you are. And this state of mind can only be created by doing a selling job, and not worrying about things, he opined.

Mr. Gheen, former newspaper reporter and business executive, gave a humorous talk at the association's banquet. But in his more serious moods he gave some sound philosophy on the value of organization, and pointed to the things that could be accomplished by organizations such as the Pensylvania association by the members uniting in their efforts to improve conditions in the industry.

No resolutions were adopted, but in two meetings—one a director's meeting, the other an open business meeting—the seal of approval was placed on the public relations program. In the director's meeting, over which L. H. Setzer, the association's president presided, a number of plans for the betterment of Independent marketers in Pennsylvania were outlined. A progress report by Grover R. Dale, executive secretary, indicated that in the short time the association has been under way, members have received a number of benefits that will more than save their dues. Membership has increased several hundred per cent since the formation of the association last August, and a number of active and associate members signed up during the convention. Treasurer Philip P. Peters reported a very sound financial condition and it was the consensus that the Pennsylvania association was well on its way toward taking its place among leading Independent associations.

Among other information developed since the formation of the association was the fact that 50% of the gasoline and 78% of the fuel oil in the state of Pennsylvania is being distributed by Independent jobbers and distributors.

The directors voted to hold a fall convention at Bedford Springs on October 6-7.

Oil Industry's Expansion Requirements Call for Pricing Methods That Bring About Good Profits

ALL industries need more fearless and frank talk for good profits, like that given by Chairman Wilson to his stockholders at the annual meeting of the Standard of Indiana the other week. But in addition all industries, and especially the oil industry, need not only an overhauling of their pricing policies but the perfecting by each company, big and little, of much better methods of seeing that company officers and employes successfully carry out profitable price policies.

Dr. Wilson based his assertion for better profits on his estimate that the oil industry for a number of years should be investing at least $3 billion dollars a year in new money in additional and improved facilities all the way from the well to the consumer. That is roughly $1.65 per barrel or 4c a gallon for every gallon of this year's throughput. The doctor's estimate should be given the greatest consideration because he has had exceptional opportunities as chairman and member of various national committees on oil requirements, to get the clearest picture of the oil industry and its future.

To get down somewhat from the astronomical realm of the billions and relate these figures to profits, as Dr. Wilson does, take his own company. Its net earnings last year were $67,650,000, the largest in dollars, we believe, in the company's history and quite well up in percent on capital but at that less than 7% on all of its assets. The company ran almost 125,000,000 bbls. through its refineries for the entire year. Taking the new investment factor the doctor gives of roughly $1.65 per bbl., that means that Dr. Wilson's own company will have to spend more than $206,000,000 a year in each of these years that he says lie before us in additional and improved equipment and crude production.

Where is the Standard of Indiana, big as it is, going to get all that money?

The company's quick assets, cash, investment in salable securities and receivables at the end of 1946 were $298,000,000, which reflects $40,000,000 borrowed from the banks against this year's improvements and $5,000,000 from sale of stock held. The company has already borrowed another $10,000,000 against these improvements so it still has a possible $156,000,000 to raise, an amount that still exceeds its cash and government bonds on hand.

Dr. Wilson shows that such huge expenditures are needed not only because of the demand for increased supplies but also because all equipment and the payroll that goes with its manufacture and installing are way above in cost that of a few years ago. In fact he says to duplicate all that any oil company has today would cost twice what it is on the books for.

When one visits around with the executives of the major companies today, one finds them all worried as to where and how they will raise the money that the immediate future is demanding of them. Companies that always have operated conservatively, financing out of profits largely, are now faced with issuing notes and bonds or even more stock and in large amounts.

As Dr. Wilson pointed out to his stockholders that to raise money for these improvements and additional facilities requires good profits as investors otherwise cannot be prevailed upon to risk their money.

"Petroleum prices are still too low," he said. "Our problem is to have enough profit to cover our much higher replacement costs and to provide or attract the capital needed to maintain the rate of growth and continued quality of improvement that our customers expect of us."

The present tightness to downright shortage of supply in many products but adds emphasis to his warning.

Profits, obviously, can only come from prices that have been carefully figured and collected to cover all costs and the profits. Unfortunately the oil industry has thought and talked and figured too much on barrels produced and gallons sold. The sales departments and those who set the prices have been too far away from the profit and loss figures not only of the company but of their own departments. Praise is given too frequently for big gallonage regardless of whether the sales were profitable, rather than for net profit. Because some competitor, big or little, makes a cut price and gets the business, everyone else has been too prone to go hell-bent-for-election to get it back or to grab an equal gallonage from someone else to make up for the loss.

Another most important factor is the price management problem created by the great size and continued growth of the major companies. As daily reporters of oil industry prices everywhere—through the OILGRAM PRICES for 25 years—we have necessarily had intimate contact with the pricing machinery of these majors. We have seen it improve wonderfully over the years but we also have seen its difficulties and its weak spots. A number of times we have seen these majors throw up their hands and say they did not know what prices they were selling at at a given point that day and would we help them find out?

In the main the majors have been centralizing their control over their own prices more and more in their home offices but even so they still have to take the recommendations and not always unbiased statement of facts they receive from their local people. Only a few companies, that we know of, carry their profit and loss figuring in the marketing department down to districts or bulk plant areas.

The great advantage of a strictly jobber operation is that the jobber is faced every day with a profit or a loss. Sometimes a jobber goes haywire and thinks he can bring a major "to time" by indulging in a price war against the major but the jobber who has a decent accounting system doesn't let his anger get the better of his bank account.

With all restrictions off the consumption of petroleum products companies are again making a drive for gallonage and we hear more and more about how major or Independent seems to think the only way to get gallonage is with a secret

cut price. The installation of larger tankage—4,000 and 5,000 gals.—at service stations, according to report, is being taken by some sellers as a reason for cutting the price even down to a tank car price basis, on the theory that there is that much saving in trucking cost due to the larger dump. We have yet to see satisfactory figures that we think prove that contention. However companies seem to be permitting sales officials to act on their own conception of the saving and without regard to what that does to the market generally.

At the moment we have in the office photographs of correspondence that seems clearly to show that the subsidiary of a major company has made an offer of 2c a gallon under the local tank wagon price for an account that that major never had but which grew up from a couple of hundred gallons a month to quite a few thousand gallons and at various points with a local Independent jobber distributing for another major. There may be a good story on the part of the major's district manager who is going after this gallonage with the cut price. Perhaps the jobber has been giving him "trouble" but from all that we have learned we doubt such a story. What it looks like is that the district manager has the authority to make his own prices and he has decided to get this gallonage evidently on the theory that if he can get all of it and make large dumps he will "save" the cut in the price.

But what will happen is that knowledge of that seemingly secret price cut will get out, not only in the seller's own sales organization but among the customers. All the seller's own salesmen will soon be demanding similar cuts even though a prospective customer isn't quite up to the consumption point of this big customer. And as the information gets about, as it always does, other customers will demand the same cut. Then we will have a 2c lower price to about every type of customer whether there is any actual saving in delivery costs or not.

Intelligent competition should reduce price and costs, but "intelligent competition" is that which knows its costs before it cuts prices, which has carefully reviewed the effects of a reduced price, and which has the intelligence and the courage to put the new price, cut though it may be, at a fair level based on all costs and a decent rate of profit.

The foregoing are among the reasons why NATIONAL PETROLEUM NEWS welcomes the growing personal contacts between the Independent jobbers, as represented by their National Council of Independent Petroleum Assns. of which Gordon Duke, a jobber of New York and Jacksonville is now chairman. That personal contact should show the top executives of the majors more about the value of putting all operations on a strict profit and loss basis, even down to the bulk plant and agent, than years of preaching. It would seem to be a safe assertion that the best control, in fact perhaps the only real control over prices that will make them profitable, is to have the man or men who set those prices for each company to profit or lose with each price set.

That might also well suggest to these executives that they consider more seriously than perhaps they have of going all out on a "jobber basis", that is with the man in charge of an area and the property and business in that area, paid according to the profit he makes and fired according to the losses that he incurs. When a man is so far away from the profit and loss that he does not know the effect of his price decisions and when he is praised for gallonage only, it is not treating him fairly nor the competitors to give him the power to affect price.

So, getting back to the start of this editorial, Dr. Wilson of the Standard of Indiana is absolutely right that the industry needs more profit and a lot of it in order properly to serve the public, but the industry also needs the close study by such students as Dr. Wilson as to how it can set up pricing methods that will bring about good profits. And that goes for not only the Dr. Wilsons but for all of his and the other majors ten thousand competitors. All must figure into their day's prices the profit before they start selling.

READERS' comments and opinions will be much appreciated by Warren C. Platt, NPN's Editor and Publisher, Penton Building, Cleveland 13, Ohio.

LETTER

From: W. L. Heinz,
Secretary-Treasurer
South Carolina Oil Jobbers Assn.
Columbia, South Carolina

TO: The Editor:

Thanks for sending me a copy of your letter of May 16th to the "Top Brass" of the oil industry regarding oil's obligations to the military. Although this is not directed to the little feller like me, I assume your including me in the mailing list indicated you would like to have my thoughts on the matter.

As I see it the proper objectives of the industry are as follows:

1. An assured adequate supply for the military and the nation under either normal or emergency conditions.
2. An adequate supply and development for a progressive national economy.
3. Freedom from governmental control.

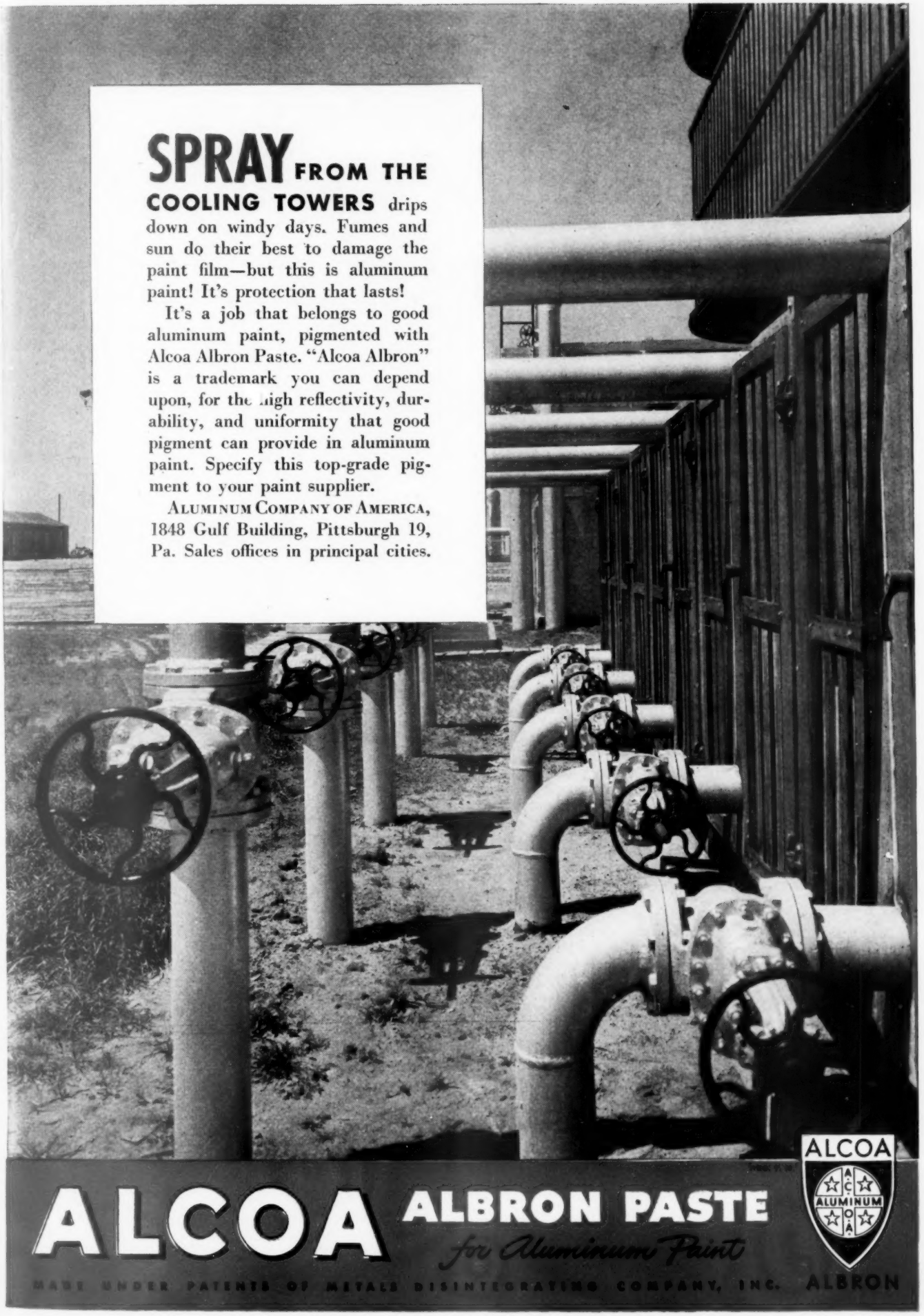
The first two objectives could be best accomplished through an absolute monopoly and a dictatorship. The military would much prefer to deal on such a basis, as was apparent during the recent war in their preferences for big deals with the largest units of the oil industry.

The third objective is incompatible with this above solution and such a plan would mean nationalization or worse.

As I see it, the only workable solution would be to bring into the picture even to an exaggerated degree, the independent segments of the producing, refining, and marketing divisions of the industry to see that all rules of free enterprise are followed, and use NPC or some other antitrust-proof agency to act as fact finding and umpiring intermediary with a backing from the people through congressional edict.

Neither the API nor any tool of the majors could do the job with the military without threat of nationalization. This was clearly demonstrated during the recent war when even in a time of patriotic emotionalism, the little fellers had to holler like Hell to keep from getting frozen out.

Having a sounding board this hollering served the industry well, and saved them from the results of uninhibited self interest.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Viewing the Oil Production, Market Potentials in Bahamas

Exploratory Work Being Carried on in 85,000-Square-Mile Area from Airplanes and from Diving Bells Under the Sea

By WARREN C. PLATT
Editor

NASSAU, The Bahamas—In these languorous islands in the always warm water off the southernmost tip of Florida—islands more thought of in history as the home of Bluebeard and the headquarters of pirates and bootleggers than as the home of the first republic of this hemisphere, islands twice held by the new United States of America—two important developments are taking place of great interest to the oil industry.

The chief development is the possible discovery shortly of a great oil field that is more likely to lie under some 75,000 square miles of shoal water than under the 10,000 square miles of the land constituting these islands and reefs.

The second is the development of these islands as a winter and perhaps a year-around resort, a development speeded by an increasing exodus of wealthy British from England who cannot get their money out of England, but, as this is a colony, they are investing their pounds sterling here for homes, for future increases in land values and to have money handy in the event they can create some money-making enterprises here or, perchance, slip some of it over into the nearby U. S. for greater earning power and perhaps safety from the socializing labor government back home.

If, to this new money from England which is rapidly bringing smart homes and big yachts and modernities to this ancient town, is added royalty money paid direct to the government from a big oil field, Nassau and the surrounding islands will blossom as few other resorts have, rivaling the luxury of even the Florida east coast district. Such a development will make a far bigger market for petroleum products, than has ever been thought of here. That market will be more for fuel for sea craft and the development of a vegetable, dairying and modest farming industry rather than for motor fuel because the smallness of the islands offers scant invitation for motoring.

The most striking development is the exploratory work for oil. Already the experts at finding oil are gathering here. Narrow Bay Street, the main street of Nassau, sports the signs of five international oil companies and around a corner is the sign of a sixth. These are the advance guard of oil development and they have come here from the U. S., the Caribbean and Venezuelan and South American fields. Several have worked in the far Pacific and the Middle East. This is just another stop on their continual journey about the globe looking for oil. Several of the early ones have already departed for still newer areas.

We even found a girl geologist from Oklahoma who had chronicled the drilling of the area's only test, a dry hole just abandoned the other week at 14,587 feet. However, graciousness to the fair sex prompts the statement that she did not spot the site for the hole.

If an oil field is found down here—and the experts say it is a fair to good chance, with a few shaking their heads in great doubt—it will be about the most fantastic field in the world's history. The industry has drilled a few thousand wells in water but that has been close to shore, or in shallow bays or bayous or marshes, all sheltered water. Down here the drilling may be most anywhere in some 75,000 miles of shoal water but all practically open sea. The solid land area, and that is in small chunks down to reefs, amounts to but a seventh of the area now being surveyed.

What will make such a field seem

This 112-ft. ship, The Stanba, operated by Standard Oil Co. (Bahamas), once hunted enemy submarines for the Canadian Navy but now rides the waters of the Bahamas in search for petroleum. Vessel is the first to use radar in the hunt for oil. At the stern rests a two-ton diving chamber in which petroleum scientists map the ocean bed

more fantastic is that it is being surveyed from both the sky and from diving bells on the bottom of the sea. Airplanes are flying back and forth across this area towing electronic magnetometers so that a multitude of parallel lines can be drawn on the maps that will show the convolutions of the rock on the surface and at the bottom of the sea. Then detonations are being bounced off the rock from the diving bells, to add to the geological data.

It is going to cost the group of five large companies who are jointly making this survey, some three quarters of a million dollars just to get these parallel lines on their maps. The lines won't tell if there is oil here, nor, if there, where it is. The lines just will give the boys a better knowledge of the geology of this part of the world which may help them a bit in doping out the geology of the East Coast of the U. S., where much wildcat drilling has been going on of late years with only a few barrels of oil to show, as well as more about our great Gulf Coast oil development. But the survey will settle one question which has been bothering the residents here and seafaring men for 455 years since Columbus made this his first landfall. The survey will fix for all time just exactly where on the globe these islands are. Maps do not agree by a matter of miles because no one was sufficiently interested to spend money for an expensive survey. Thanks to the venturesome oil companies, in a few months from now the world should know to a fraction of a degree longitude and latitude just whereabouts are the Bahamas.

What makes this exploration and great expenditure of money all the more fantastic is that it is being made in the face of the fact that an American oil company, the Superior Oil Co. of Los Angeles, has just abandoned a deep test of 14,587 feet of all dry hole, on the larger island of Andros below here and on which it has been drilling for a year. However, while the hole did not find any oil, it produced enough geological data, thanks to the close scrutiny of our American girl geologist from Oklahoma, to warrant the companies proceeding with this highly speculative aerial and underwater survey. Before the oil companies get through fussing around down here they will have a few million dollars sunk, whether they get oil or not.

Will Aid Island Development

All of this is but further evidence of the thorough and diligent search that the oil industry is making all over the world, not just to find oil for today to locate and measure oil reserves for tomorrow. Millions are being gambled in this Western Hemisphere. Along the East Coast are many tests. There are nearly a hundred tests in Florida and Georgia alone with only an handful showing oil. Despite this, the companies are going ahead with heavy expenditures until all possibilities have been exhausted.

Discovery of any sizeable amount of oil will greatly aid the government of the Bahamas in developing these islands, not only into the winter resort they hope for, but perhaps into a year-around resort. The government now operates without levying any direct taxes on either incomes or property. The revenue comes from duties on imports, a large percentage of which is paid by the tourists who are generally well-to-do and buy the most expensive imports. This enviable position of the residents will be greatly heightened by the government's eighth royalty in case oil is found. That will mean more docks, deeper and wider channels, more mooring places for private yachts and power boats, more electricity and water and all the other modern comforts that big oil royalties can buy.

Key instrument in Bahamas search for oil is this diving chamber. Emerging from chamber here is Dr. R. J. Watson, Tulsa, manager of the Bahamas Standard exploration group. With him are: C. F. Sellers (left), in charge of the diving chamber and underwater gravity work, and J. Pollard of the exploring group

The possibilities of the Bahamas as a greater pleasure resort are not to be discounted. Nassau now has four good to high class hotels and a large country club. It is only a little over an hour by air from Miami and two days and three nights from New York by ship. There are two large airfields here left over from the war. They were built by the American Army for transferring lend-lease planes to the British. And there is much space yet on this island to be built upon, to say nothing of all the other islands hereabouts. Americans and Canadians have been coming here in increasing number to build their own homes and now the British are moving over from England. A real estate boom is consequently in progress. Then, if a real oil field is found here, there will be the big development of homes and offices and warehouses necessary to house it.

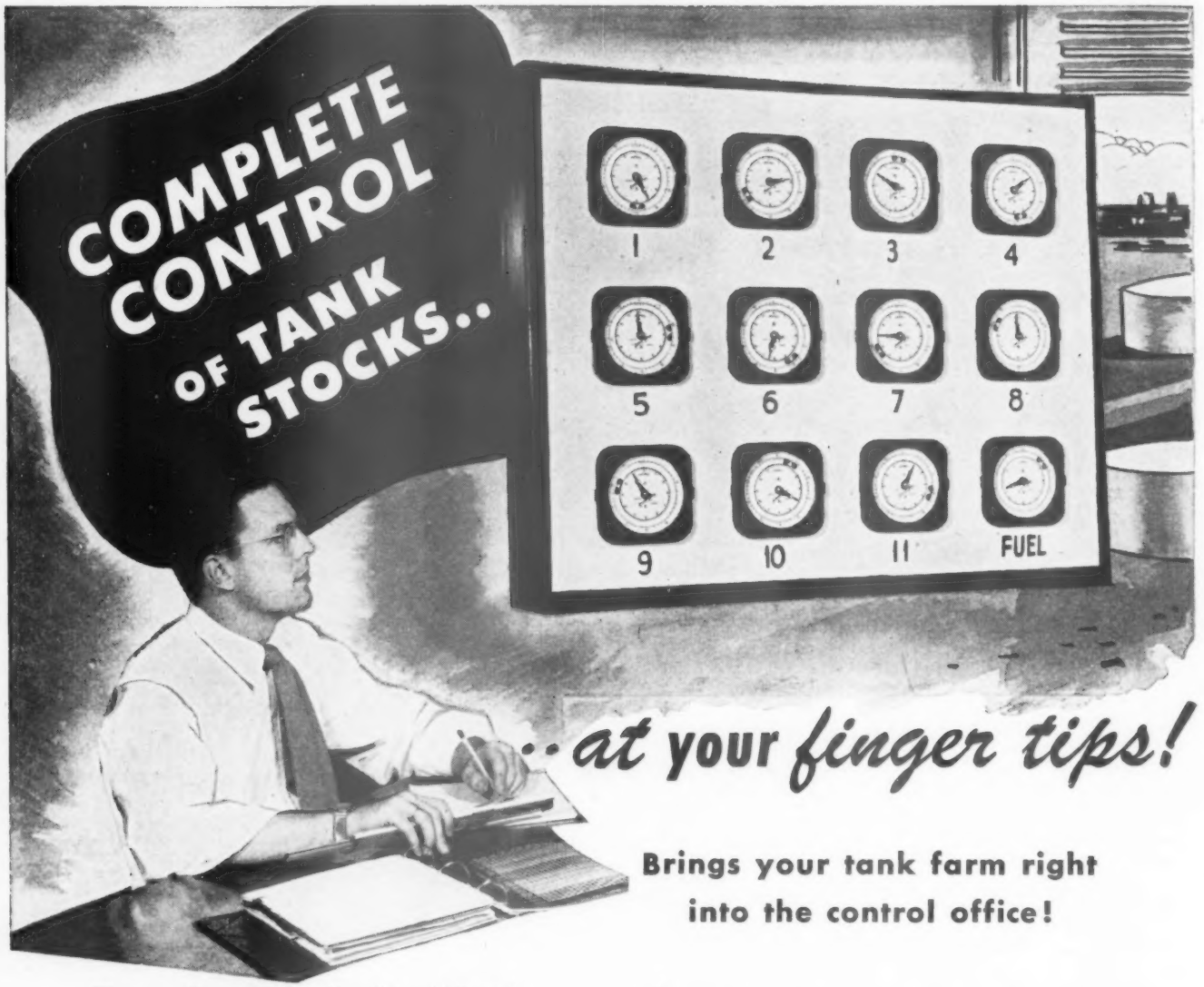
The offhand guess of oil men now here is that if oil is developed the crude undoubtedly will be shipped to the U. S. by tanker for refining rather than erecting a refinery here and breaking in native labor to man it or bringing in men from the U. S. There also probably would be difficulty in getting enough fresh water to economically run a plant here, especially in the hot summer.

Not a Large Petroleum Market

While the Bahamas will grow greatly as a pleasure resort and such growth will give good percentage increases to it as at petroleum market, the islands, as oil consumers, probably never will be comparable to any of the many resort areas in the U. S. This will be chiefly through lack of enough land on which to run trucks and passenger cars, lack of industrial establishments calling for trucking and lack of earnings for the native population to buy cars to any extent. At present a 50-mile drive will take one all around New Providence Island, on which is Nassau, the biggest population center. Many other islands, while being occupied by Americans, are so small one would not think of putting a car upon them. Consumption of fuel for power boats is more likely to zoom larger than for cars.

Imports of motor fuel—all kinds—in 1945 were almost one and three quarters million gallons, which included more than 300,000 gals. of avgas brought in for the RAF. For 1946 the motor fuel imports were a million and a quarter gallons and so far this year they have increased about 10% over 1946. Kerosine is running better than half a million gallons a year and Diesel fuel close onto two million gallons.

Oil consuming devices have yet largely to be introduced. Of trucks there are registered 391 and they are mostly small ones, with 79 taxis, 53 motorcycles and 1,155 private passenger cars—this for all the islands. Farm tractors are limited in their use because so much of the



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land is studded with outcrops of limestone rock. Soil has accumulated in between the rocks in which vegetables and corn are planted by hand. On Elutherea, a larger island, is some farming soil and here is the main source of dairy products, where a big land owner bulldozed away the top rock at big expense. As the better-off tourists increase in number in the islands, it is conceivable they will be able to pay for farm and dairy products at a rate to compensate for the higher cost land cultivation.

Domestic heating equipment is not needed at any time during the year, tropical weight clothes being worn all the time. However, in view of the high temperatures and humidity of summer, there will undoubtedly be an increasing market for air conditioning in the newer homes and offices just as there will be an increasing market for electrical cooking and refrigerating appliances as these homes are built, by not only visitors, but by the native population as their earnings increase by reason of the visitors. All this will work for larger markets for petroleum products.

Only three oil companies, all American, operate distributing businesses here with Socony-Vac selling some packaged lubes through a shipping agent. The Standard of New Jersey operates here as Esso Standard Oil (Carribbean) S.A. and does about half the gallonage. It is putting in a new warehouse and office building with tank truck loading rack off the main street of Nassau, the rack being supplied by 4 2½-in. pipelines from Hog Island, across the narrow channel where oil storage of about two million gallons is maintained in tanks and spheres. Second in gallonage is The Texas Co. with a third of the total and the remainder is supplied by Sinclair. The war forced the companies to pool their bulk storage and incoming shipping facilities and that practice will continue presumably until shipping loosens up.

Oil Personnel at Nassau

However, the basic regulations of the islands will make it difficult for any more oil companies to enter, or for more competitors to come in any line. The privilege of doing business in the Bahamas, or even holding a job, is strictly under license by the government and this for the express purpose of limiting the contenders for what business and jobs there are so as to insure a reasonably profitable volume to those now here. The reason is easily apparent when studying the limited growth of the population and its wealth over its 300 years. Only since the coming of well-to-do tourists, the construction of large and expensive hotels and good homes, has there been real growth in the business volume.

The manager for the Standard is J. A. Ince, an Englishman. He has been in charge here for 11 years. Prior to that he was with the former subsidiary of the Jersey Company, the West India Oil Co., at Barbados island.

Neville M. Stewart has The Texas Co. agency with A. T. Taylor as manager and Robert Albury as assistant manager. Stewart is also interested hotel projects in nearby islands.

A veteran member of the local House of Parliament represents Sinclair, as the Sinclair Cuba Oil Co. He is A. R. Braynen who began the oil business in Nassau—of which he is a native—in 1931 shipping Gulf products in drums from Jacksonville. The products were nearly all white gasoline for cooking and home lighting plants. While Braynen gives a good sales talk for the future of the Bahamas he also is proud of the fact that he is sending a son to a pre-dental school at St. Cloud, Minn., U. S. A. and expects him to get his D.D. up there and then return to Nassau. Representing Shell in its new avgas distribution here at Oakes Field, is Lester Brown, manager and ex-flyer.

The company that drilled the deep dry hole on Andros Island is the Bahamas Oil Co., Ltd., a subsidiary of the Superior Oil Co. of Los Angeles. Its manager here is B. R. Kunau, veteran oil production man of the U. S. and especially California. His geologist is Maria Spencer, the woman who checked the progress of the test. She is a native of near Altus in southwest Oklahoma, a graduate in geology of the University of Oklahoma and came here a year ago from Midland, Tex., where the Superior was operating.

Shell operates as the Shell Co. of the Bahamas, Ltd., Noel B. Yule, is manager and John Bemrose assistant. Both are Britishers and have seen much service with Shell over the world, Mr. Yule coming here a few months back from Curacoa.

The Anglo-Iranian Oil Co. of London is represented by the Anglo-Bahamian Petroleum Co., Ltd., Stephen Dowling (whose golf clubs his gang kindly loaned me and for which thanks, even though the clubs could not cure all my golfing idiosyncrasies) has been in charge but is now back in England. Present boss is L. M. C. Seamark with Dr. Richards and R. M. Weekes assisting. Seamark is a top pipeline engineer, among other things, for Anglo-Iranian and I chased him all over England two years ago to get from him the engineering side of the story of his development of field and under-sea pipelines for the British Army, but I never could catch up with him. Among other stunts he cooked up was the hitching up of light field pipe in 1,000 foot lengths during the daytime and under the shelter of trees, bushes or other camouflage, and then snaking the pipe to where it was to be laid at night with tractors, this to reduce interference by air bombing. By experiment the British found that 1,000 feet of pipe would hold together for the average haul from camouflage to site of line.

Allied with Trinidad Leaseholds of London, is the British Bahamian Oil Development Co. with Charles T. Lee in charge. However this company, while holding much acreage, is not participating in the magnetometer survey.

The Gulf Oil of the U. S. is represented by the Bahamian Exploration Co. with J. C. Higgblom in charge. He is chairman of the local engineering committee conducting the survey. Dr. Higgblom has long been in the scientific end of the Gulf's exploration work.

Head of the Standard of New Jersey's work here is E. F. Whittingdale, manager of the Standard Oil Co. (Bahamas) Ltd. He, too, is a veteran of the Jersey company's exploration work most everywhere. With him is Dr. R. J. Watson another gentleman of oil finding science.

History of the Bahamas

While Nassau and the Bahamas may bear a most important relation to the U. S. with a prospective oil field, we of the U. S. little realize the importance of its relation to us back these years since Columbus sighted New Providence Island as his first landfall.

Nassau was settled by the same class of objectors to the crown in England as was our New England. As Pilgrims and Puritans came to New England so their brother Englishmen from the same areas in England came to the Bahamas and settled chiefly in Nassau. Their first charter from the crown made them a republic in every sense of the word but after a few years of this another king backed out of the deal and gave the islands to a group of friends from which it has since become a colony with local government.

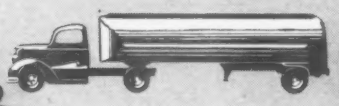
The first government here barred slaves but as slaves began to come into the U. S. some were dropped off here. However, by 1838 slaves were freed by act of this parliament.

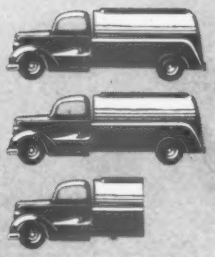
Twice Nassau and some of the islands have been seized by American forces. Once in 1776 when the American Navy seized powder for our War of the Revolution and again in 1783 to chase out the Spaniards who had taken the islands from the British.

While this is a British colony and its business and land owning is dominated by families of direct British descent, there seems to be a warm spot for the U. S. A. The whole town turns out for a big Washington's birthday celebration, with the natives parading the streets and the socially elite attending big parties and balls in the hotels.

Whether these Islands produce the next big oil field of the Americas, at all events we recommend them for a visit. You will find them quiet and unhurried, the weather relaxing and the other visitors not the usual noisy touring kind. Good to high hotel rates, which will undoubtedly be adhered to by these British-owned and operated hotels in order to keep an exclusive air to the place, will keep out the Coney Island and Atlantic City circus attributes. It's a fine place to loaf.

1 FRUEHAUF TANK-TRAILER DOES THE WORK OF 2½ TANK TRUCKS





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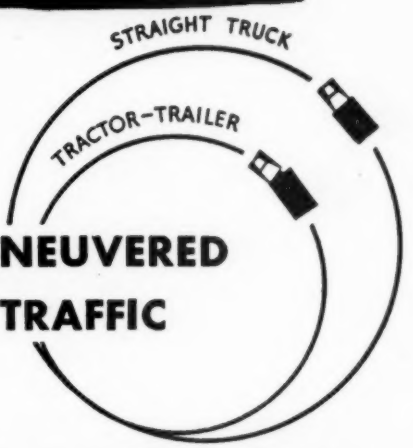

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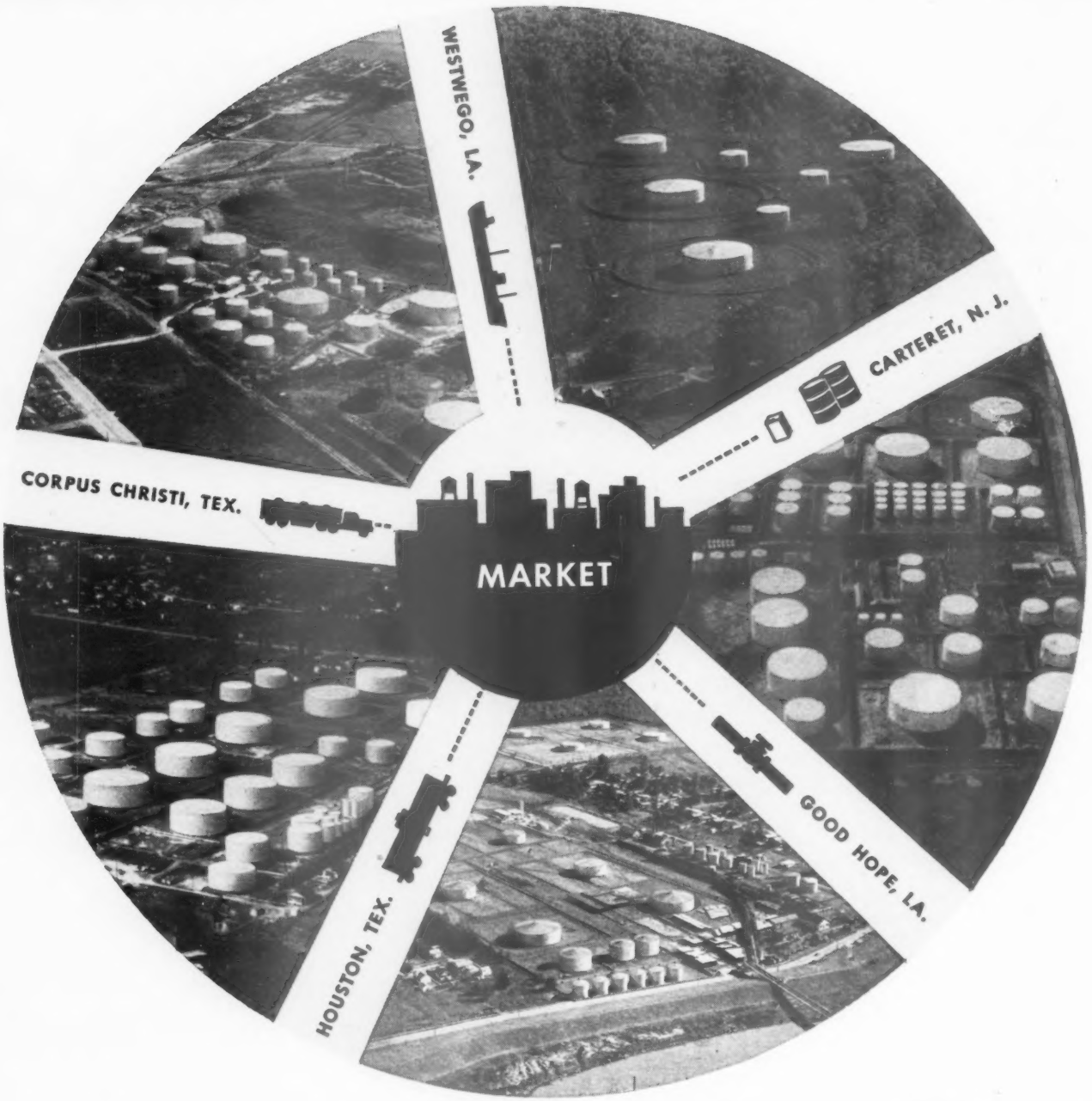

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Today's automobiles need careful inspection and lubrication every 1,000 miles and it costs well under 0.5c a mile on the average. These and other facts brought out at the API Lubrication Committee meeting in Los Angeles offer valuable data for use at sales and service meetings.

Pushing 1,000-mile lubrication is an important safety measure which at the same time can be profitable because of sales of TBA made possible through discovery of defective tires, lights, horns, windshield wipers, mirrors, mufflers and other items.

Complete text of one talk and a condensation of another paper given at the API lube meeting follow:

Lubrication Is Cheap As Preventive Maintenance, Georgi Tells Meeting

By CARL W. GEORGI,
Quaker State Oil Refining Co.

(Complete Text)

Introduction

The American Petroleum Institute, through its Lubrication Committee, has consistently advocated "Lubricate for Safety Every 1,000 Miles". It is generally agreed by automotive and lubrication engineers alike that a chassis lubrication job at 1,000 mile intervals provides the best possible opportunity for a general check-up to locate and correct any minor defects which may have developed in a vehicle and to replenish low lubricant levels wherever they may be found. Thus a chassis lubrication job every 1,000 miles is not only for lubrication but is for safety and preventive maintenance as well. It is noteworthy that the motor-car manufacturers also believe that this periodic lubrication and inspection is sound practice, since 16 of the 17 makers recommend chassis lubrication at 1,000-mile intervals, the one other maker recommending 2,000-mile intervals.

Vehicle Safety Tests

An interesting sidelight on vehicle inspection and maintenance is provided by information recently released on automobile safety tests in the city of Chicago, Illinois. All vehicles owned and driven in Chicago are required by city ordinance to be safety tested each year, and a summary of the test results for 1946 is given in Table 1.

TABLE 1

Summary of 1946 Automobile Safety Tests Chicago, Illinois

Total Vehicles Tested	823,000	
Total Vehicles Found Defective	313,489	38.1%
Faulty Lights	147,097	17.9%
Faulty Brakes	101,742	12.3%
Faulty Steering	23,803	2.9%
Faulty Mufflers	10,583	1.3%
Faulty Horns, Licenses, Wipers, Windshield, Mirrors, etc.	30,264	3.7%

Of the 823,000 vehicles inspected, 38% were found to be defective! The largest source of defects was faulty lights and the second largest cause, faulty brakes. Almost 1 car in 8 had defective brakes! It would be interesting to know how many of these brakes became defective from leakage of lubricant from wheel hubs past excessively worn seals onto the brake bands. It would likewise be interesting to know how many of these defective brakes had been let go to the point the drums became scored by the lining rivets, necessitating drum replacement or an expensive machining job, in addition to new bands, to restore them to sound condition.

The third largest cause of vehicle rejection was faulty steering—1 car in 35. Again, it would be interesting to know how many of these defective steering gear got in such condition from excessive wear of gears, bearings, knuckles, shackles, bushings, and related linkage and because of lack of adequate lubrication.

The fourth largest cause of vehicle rejection was faulty mufflers and exhaust piping—1 car in 80—certainly a health and safety hazard to drivers and passengers.

It is noteworthy that one vehicle out of every six had either defective brakes, steering or exhaust piping, and it is equally noteworthy that these three conditions are not only important from a safety viewpoint, but are also closely related to periodic lubrication and inspection.

Prevention of excessive wear of steering systems by lubrication at 1,000-mile intervals needs little comment or explanation. When vehicles are on grease racks, the chassis are exposed to reveal defects such as rusted out mufflers, grease drippage on brake drums, loose or worn parts, or low lubricant supply. Such defects, when found in time, may often be the "ounce of prevention" of expensive repairs. Similarly, a wheel bearing lubrication job will automatically reveal the brake bands, bearings, and seals, so that their condition may be called to the attention of the owner, and minimize the possibility of drum scoring from exposed band rivets, grease leakage through worn seals, or defective bearings.

These Chicago vehicle inspections confirm that "Lubrication for Safety" is a worthy slogan and a sound practice. However, the common interpretation of "safety" relates it to traffic accidents, injuries and fatalities. We must admit that few accidents, if any, can ever be attributed solely to lack of lubrication, and we cannot claim that lubrication at 1,000-mile intervals will effect any great reduction in the yearly accident toll. Rather, we must emphasize that "Lubricate for Safety" means prevention of undue wear and deterioration, and the location and correction of minor defects, before they develop to the point of breakdown and expensive repairs. A large part of "Lubricate for Safety" is really "Safety" for the pocketbook!

Cost of Lubrication

Although few will disagree that lubrication for safety at 1,000-mile intervals is sound practice, there is a general impression that such lubrication is extremely expensive and that it may be cheaper in the long run to lubricate only once in a while. There even seems to be a new school of thought developing which might be summed up as "You can save money by *not* lubricating your car". In view of this general situation, it is interesting to consider on a dollar and cents basis the cost of good lubrication in relation to the over-all cost of running and maintaining a passenger car. Table 2 itemizes the approximate annual cost of "Lubricate for Safety Every 1,000 Miles" for the average owner driving 10,000 to 12,000 miles per year. The total cost of $45.00 is well on the generous side and undoubtedly represents appreciably more than is spent by the average motorist for this purpose. In any event, the best of lubrication costs well under .5c per mile of car operation.

TABLE 2

Approximate Annual Cost of "Lubricate for Safety Every 1,000 Miles"

(10,000 to 12,000 miles per year)

10 to 12 Crankcase Fills 10 to 12 quarts Make-up Oil	$22.50
10 to 12 Chassis Lube Jobs	13.00
2 Transmission and Rear Axle Changes	4.00
1 Wheel Bearing Repack	1.50
Miscellaneous	4.00
	$45.00

(Less than .5c per mile)

Obviously, $45.00 is a significant sum of money to the average motorist when considered alone and as a direct expense item. However, lubrication cannot properly be considered in this light and solely as an outright expense, and should be weighed in relation to the

over-all expense of car operation and maintenance.

Table 3 itemizes the approximate annual cost of running a car 10,000 to 12,000 miles.

TABLE 3
Approximate Annual Cost of Running a Car 10,000 to 12,000 Miles

Gasoline	$160.00
Insurance	40.00
License	12.00
1 Tire and Tube	20.00
½ Battery	9.00
½ Brake Reline Job	10.00
1 Set Spark Plugs	4.00
Miscellaneous Minor Repairs and Adjustments	10.00
	$265.00

(2.5c per mile)

The annual costs for tires and battery were purposely estimated on the low side, since some surveys indicate an average replacement of 2 tires and ¾ battery per vehicle per year. However, many owners do not purchase car insurance, so that this expense was partially discounted by the low estimate for tires and battery. The total cost of $265.00, or 2.5c per mile, is purposely conservative and includes only items of direct out-of-pocket expense, and does not cover intangibles such as depreciation, garage rent, major repairs, etc. Accurate cost records in passenger car fleets indicate that total expense including all of these items normally runs from 5 to 7c per mile.

As an average comparison, "Lubricate for Safety" costs less than .5c per mile, while the direct cost of vehicle operation is 2.5c per mile, and the total direct and intangible expense is conservatively 5c per mile. Good lubrication thus amounts to less than 1/5 to 1/10 of the over-all cost of car operation.

Cost of Repairs

The final consideration in passenger car operating expense is that of repairs. Table 4 lists typical repair costs of the type directly related to preventive maintenance and lubrication—that is, the repairs which may be avoided or minimized by Lubrication for Safety Every 1,000 Miles. As shown, repairs can be very expensive, and one major repair job can readily cost as much as complete lubrication for an entire year. Even a relatively minor repair job may readily cost more than all of the motor oil used in a year. By comparison, lubrication is cheap.

TABLE 4
Typical Passenger Car Repair Costs

	Labor and Parts
Engine Overhaul	50.00 to 150.00
Front Suspension, Overhaul and Rebush	10.00 to 40.00
Steering System Rebush Knuckles, Tie Rod and Drag Link	10.00 to 20.00
Steering System, Complete Overhaul	15.00 to 30.00
Rear Suspension, Overhaul and Rebush	7.00 to 12.00
Rear Axle, overhaul	30.00 to 75.00
Transmission, overhaul	25.00 to 65.00
Universal Joint, overhaul	10.00 to 15.00
Wheel Bearing, overhaul, per wheel	3.00 to 10.00
Brakes, Reline	16.00 to 35.00
Engine Tune-up, minor	2.00 to 5.00
Engine Tune-up, major	5.00 to 20.00

Good Lubrication is the "Ounce of Prevention"

It seems important to emphasize that good lubrication is not entirely an outright expense, but is in large part preventive maintenance—the "ounce of prevention" which may save expensive repairs. It likewise seems the petroleum industry has a job to do in publicizing the facts pertaining to car lubrication and care.

First, we can give more publicity to the fact "Lubricate for Safety Every 1,000 Miles" is not just lubrication, but is also preventive maintenance—the "ounce of prevention" which can often correct minor defects before they require expensive repairs. Secondly, we can re-emphasize that a chassis lubrication job provides the ideal opportunity for chassis inspection; the best possible form of safety insurance. Lastly, we can call more attention to the fact lubrication is cheap, but repairs are expensive. We would do well to place a sign in large letters above the doorway to every grease rack and lubritorium, "Lubrication is Cheap—Repairs are Expensive".

Clark Hits Loopholes in Car Makers 2,000 to 3,000-Mile Lube Periods

By D. P. CLARK,
Assistant General Manager
Of Lubricating Sales,
Gulf Oil Corp.

(*Condensation*)

We face a surprising situation in this question of automotive crankcase lubrication. There can be no debate on the broad type of service which motor oils are called upon to provide and there has never been any question raised with regard to these conclusions. Starting from these established facts, however, we arrive at the astonishing list of contradictions on the question of "how long" or "for what mileage" it is considered a safe limit to use the same quantity of motor oil in a crankcase of an internal combustion engine.

The engineering fraternity of the motor car manufacturers seem to have reached a point where on average they say: drain the crankcase of an automotive engine every 2,000 or 3,000 miles and replace it with fresh new oil *unless, and here is where we arrive at the empirical realm of thinking: unless,*

1. The weather is cold
2. You have hard, fast driving
3. You encounter dust.

Consider each of these particular points:

1. What does cold mean when used here? I must confess to being mystified. Looking at automobile owners manual I find this phrase: "Short runs in cold weather, such as city driving and excessive idling, do not permit thorough warming up of the engine and water may accumulate in the crankcase from condensation of moisture produced by burning of the fuel. Water in the crankcase may freeze and interfere with proper oil circulation. It also produces and promotes rusting and may cause clogging of oil screens and passages. Under normal driving conditions this water is removed by the crankcase ventilator. *But* if water accumulates it should be removed by draining the crankcase *as frequently as may be required.*" That is taken from the 1947 automobile owners manual of one of the low priced popular make motor cars.

Can you picture any instruction which allows of more breadth of interpretation than that just quoted? In the first place cold weather means one thing to a resident of Los Angeles, and something vastly different to a resident of Portland, Me. . . . yet each of these individuals. . . . is told to get away from the normal recommendation of 2,000 or 3,000 miles because of short runs in cold weather.

Another part of the quotation: "Under normal driving conditions this water is removed by the crankcase ventilator."

To me it raises the question of what is meant by normal driving. To me it represents, as a city resident, the going to and from my residence to my office and to places of amusement, at average speeds of 25 to 35 miles per hour, because those are safe legal driving limits in a highly populated city. On the other hand, normal driving to a resident in the country area can mean: trips of anywhere from 50 to 100 miles at average speeds of 50 miles per hour or more.

Again going back to the quotation we have—"But if water accumulates it should be removed by draining the crankcase as frequently as may be required." How is the average motorist able to determine when water in accumulating in the crankcase except by thiefing the crankcase and allowing a sample of the material to stand for a time to permit the water to settle out. The average motorist is not equipped to do a thing like this and furthermore he would not in most cases be qualified to arrive at a conclusion even if he were, and then we

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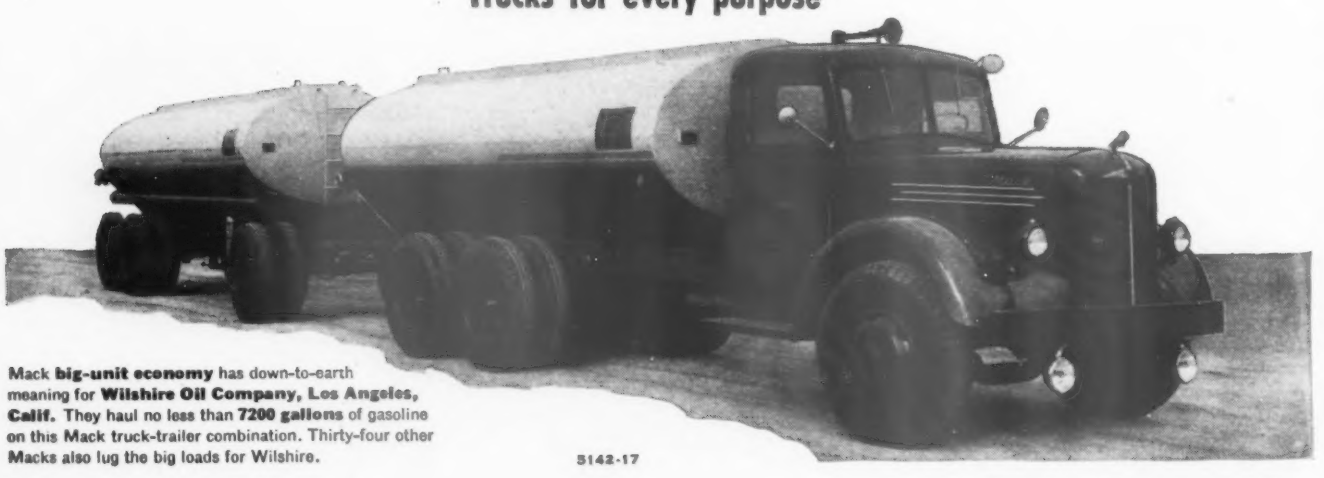

Mack **big-unit economy** has down-to-earth meaning for **Wilshire Oil Company, Los Angeles, Calif.** They haul no less than **7200 gallons** of gasoline on this Mack truck-trailer combination. Thirty-four other Macks also lug the big loads for Wilshire.

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come to the last part of this particular sentence—"by draining the crankcase as frequently as may be required." Remember that we started off with the statement in the handbook that crankcases should be drained every 2,000 or 3,000 miles. Now due to this undefined cold weather situation we finally come to the recommendation that the crankcase should be drained as frequently as may be required. This can mean anything, anything less than 2,000 or 3,000 miles, depending entirely upon the interpretation which a motorist may choose to make.

2. "Drain the crankcase every 2,000 or 3,000 miles *unless* you have hard, fast driving."

Again using the same instruction book we find this quotation: "Frequent long runs at high speed, with the resultant high engine operating temperatures, may oxidize the oil and may result in the formation of sludge and varnish. While no definite drain periods can be recommended under these conditions, they should be more frequent than under normal driving conditions."

A question again arises in my mind at once as to what constitutes "frequent long runs at high speed." As far as the mind of the average motorist is concerned. . . .the answer to this question will be as varied as the temperaments of the different drivers. Fifty miles may be a long run to one individual whereas 450 miles may be regarded as all in a day's work by another. Forty miles per hour may be a high speed to a city driver who takes to the open highway only occasionally, whereas the experienced open highway driver may feel that he is not at high speed unless driving at 75 miles per hour.

Again high operating temperature comes down to the question of personal interpretation. We do know that soluble oxidation products are a by-product of over-extended use of crankcase oil if it is extended beyond a period of useful life, and we do know that these are contributing factors in the formation of sludge and varnish. However, what does or can oxidation mean to the average motorist?

The final part of this quotation that "crankcase drainings should be more frequent than under normal conditions." Again, what is more frequent and what is meant by normal driving conditions?

3. "You Encounter Dust."

Quoting from the same handbook: "Driving over dusty roads or through dust storms introduces abrasive material into the engine. Carburetor air cleaners decrease the amount of dust that enters the crankcase. The frequency of draining depends upon severity of dust conditions and no definite draining periods can be recommended, but should be more frequent *than under normal driving conditions.*"

. . . .There is nothing conclusive upon which the average motorist can base an opinion, but please keep before us this point that the recommendation starts off with the statement: "Under normal driving conditions drain the crankcase and replace with fresh oil every 2,000 or 3,000 miles is recommended" and immediately thereafter we strike these "unlesses". . . .which carries the average motorist all over the lot.

I cannot find evidence to support the recommendations for extended crankcase oil drain periods. Conversely I can find many reasons for establishing a reasonable drain period and staying with it. . . . .The cost of crankcase oil lubrication is a relatively small item. . .

The petroleum industry has consistently recommended that a motor car engine crankcase be drained, flushed and refilled with fresh oil every 1,000 miles. In making this recommendation, consideration has been given to the fact that the vast majority of motorists have no technical knowledge on the subject nor do they have the facilities to properly evaluate the time intervals at which motor oils become deteriorated or excessively contaminated.

Failure to follow this 1,000-mile change practice exposes the car owner to the extra hazards which are recognized and are covered by these provisos which I have already referred to. This automobile owner's manual lists the probabilities:

1. Water in the crankcase may freeze and interfere with proper oil circulation.

2. Water promotes rusting and may cause clogging of oil screens and passages.

3. Hard, fast, prolonged driving may oxidize the oil and result in the formation of sludge and varnish.

4. Dusty conditions introduce abrasive materials into the engine—abrasive materials which will induce excessive wear, impair engine efficiency and reduce engine life.

What the Oil Industry Has Done

The oil industry has done a remarkable job in not only providing adequate quantities of motor oils to meet increasing demands—but at the same time it has achieved outstanding success through research in producing premium motor oils. These premium oils assure maximum engine power and smooth engine performance—minimum rate of wear of bearings, pistons, rings, cylinder walls, timing gears, all of which is aimed to extend the useful life of the power plant of the car.

Now these premium motor oils can be and are contaminated by road dust, metallic particles, soot and other by-products of combustion. With these contaminants present in the crankcase, oil oxidation of the motor oil in use is accelerated. Since premium oils are fortified for chemical stability, the rate of oxidation is lower than it would be if oils of lesser quality are used. However, oxidation will have taken place even in premium oils if their use is extended beyond a reasonable period.

Sludges are also factors to be taken into consideration. Premium oils assure the best protection against their formation, but they do not and cannot prevent them. They will be present in some degree and the best way to get rid of them is by crankcase draining and flushing at regular intervals.

There is the high temperature sludge formed by oil deterioration on the under side of the pistons, the by-products of combustion and/or oxidation of motor oil promoted by continued heat of the motor and the catalytic effect of the metals present. This high temperature sludge when once developed forms at an accelerated rate and inevitably leads to the formation of varnish and lacquer, often resulting in stuck or broken rings and worn or scored pistons and cylinders.

The low temperature sludge is formed when the oil is contaminated by moisture and fine particles, such as road dust or soot. The soot and water may be by-products of combustion which are developed usually when the jacket cooling water is too cold, and the crankcase temperature is not sufficiently high to drain off these combustion by-products, or the water which may be drawn in through the breather pipe as atmospheric moisture, especially on rainy or foggy days, or small particles may enter the crankcase as road dust. This type of sludge is formed when the crankcase oil remains at low temperatures and when, due to short runs, insufficient engine heat is developed to drive off moisture entrained in the crankcase oil.

Why preach the doctrine of being penny wise and pound foolish—the safest automotive engine practice is to drain the engine crankcase every 1,000 miles and use the best motor oil which will cost but 45c per week. There are many 50c pieces spent per week for things less practical or sensible—and if one is tempted to stretch the period to 2,000-mile crankcase drain intervals the saving between the two plans is 12c per week.

Is it a logical question for the motorist to ask us in the petroleum industry: "How often should I change my crankcase oil?" No one can give an exact answer to this question without knowing every fact about the car engine's mechanical condition and how and where it is operated. The only safe and dependable recommendation that can be made must be based on averages, the result of observing thousands of cases of cars traversing many many thousands of miles. The experience of the American petroleum industry indicates that draining at least every 1,000 miles assures most efficient operation at a cost which is small and very minor compared with the value received.

Annual Fuel Oil Contracts an Aid In Utilizing All Available Storage

Distributors Push Summer Deliveries; Value Of Advertising on Contracts Is Pointed Out

By FRANK C. STURTEVANT
NPN Staff Writer

Profits Points

1. Fuel oil contracts should be treated as a piece of advertising with appropriate layout and printing.
2. Customers will buy and pay for summer fuel oil deliveries if shown where it is to their advantage to do so.
3. Summer clean-outs for oil burners cut down costly emergency calls during heating season peaks.

Signing up of customers on annual fuel oil contracts takes on added importance at the end of this heating season. It gives the fuel oil distributor a chance to intensify his efforts to fill as many tanks as possible during the summer season, in line with the nationwide drive to utilize all possible fuel oil storage.

From answers received to inquiries it is evident that fuel oil distributors in all parts of the country are putting on additional pressure for summer deliveries. For most of them the mailing of annual fuel contracts is the initial step in a planned campaign, which will involve additional mail promotion, or direct solicitation by telephone or personal call.

It is well recognized by those who use contracts, that they have psychological value as a selling device, rather than legal significance. Those who have used them successfully for a period of years think it pays to have their contract forms attractively printed and to devote some of the space to a sales talk about quality and service. Forms in use range all the way from simple postcards up to full letter size sheets. Selling copy appears on even the smallest.

Including Additional Literature

Frequently additional literature is mailed out with contracts calling attention to oil burner service and urging summer cleanouts. The advantages of automatic, or keep-filled, delivery service should also be mentioned. One of the best supply contracts is that used by Braun Bros Oil Co., of Winnetka, Ill., in which automatic delivery is described as an accommodation to customers, furnished without additional charge.

In general no change is being made in the customary statement that price will be the distributor's posted price at time of delivery. One exception is a distributor who plans to cover all of his customers by personal call for the purpose of signing up supply contracts and who will mention at that time, the possibility of shortages and price advances.

Another exception is a special letter sent out by a distributor which will aim at doing a little public-relations missionary work. It will explain recent price advances, point out why they were necessary for the petroleum industry and compare oil prices with prices of other commodities.

Build up Customer Acceptance

Favorite argument advanced to customers for summer fills, is increased deterioration of tanks if left empty. Many distributors, as a result of past efforts, have built up customer acceptance of this idea and have had no trouble in selling 75% to 80% of their customers on summer deliveries in other years. They will be shooting for an even better record this year.

In no case is the idea of long term credit, or price concessions of any kind, being considered as means of expanding the volume of summer tank fills. At a time when every distributor can look forward to selling all the product he can get, the tendency on every side is to drop unprofitable business rather than make concessions. It is clearly to the customer's advantage to buy now, pay the going market price and avoid a last minute scramble when the heating season starts next fall.

In those areas where oil burner service by annual contract is in vogue, new contracts are being mailed and signatures solicited, using the same methods as for supply contracts, but as a separate program. A typical charge is $7.50 for a summer cleanout and $15 for annual service, with variations above and below those figures according to local labor costs and the character of heating plants owned by customers.

The higher volume of burner installations to be made this summer has made little change in the promotion of service contracts, except that one distributor plans to put a time limit on summer clean-outs. Last year too many customers put it off until the last minute and the jam was too much for the service department.

With or without contract, a pre-season check-up on customers' oil burner equipment is a useful step in eliminating emergency calls next winter. It should have a place in any all-around program of leveling off seasonal peaks.

Illinois Dealer Discontinues Burner Sales Because of Uncertainty of Fuel Oil Supply

NPN News Bureau

CHICAGO—Smith Oil and Refining Co. at Rockford, one of the largest fuel oil and oil burner dealers in northern Illinois, has temporarily discontinued the sale of burners because of the uncertainty of fuel oil supply.

Stanton Smith, executive vice president, said the company would fill present orders but would take no new ones until late summer when the supply situation will be reviewed and decision made as to future policy.

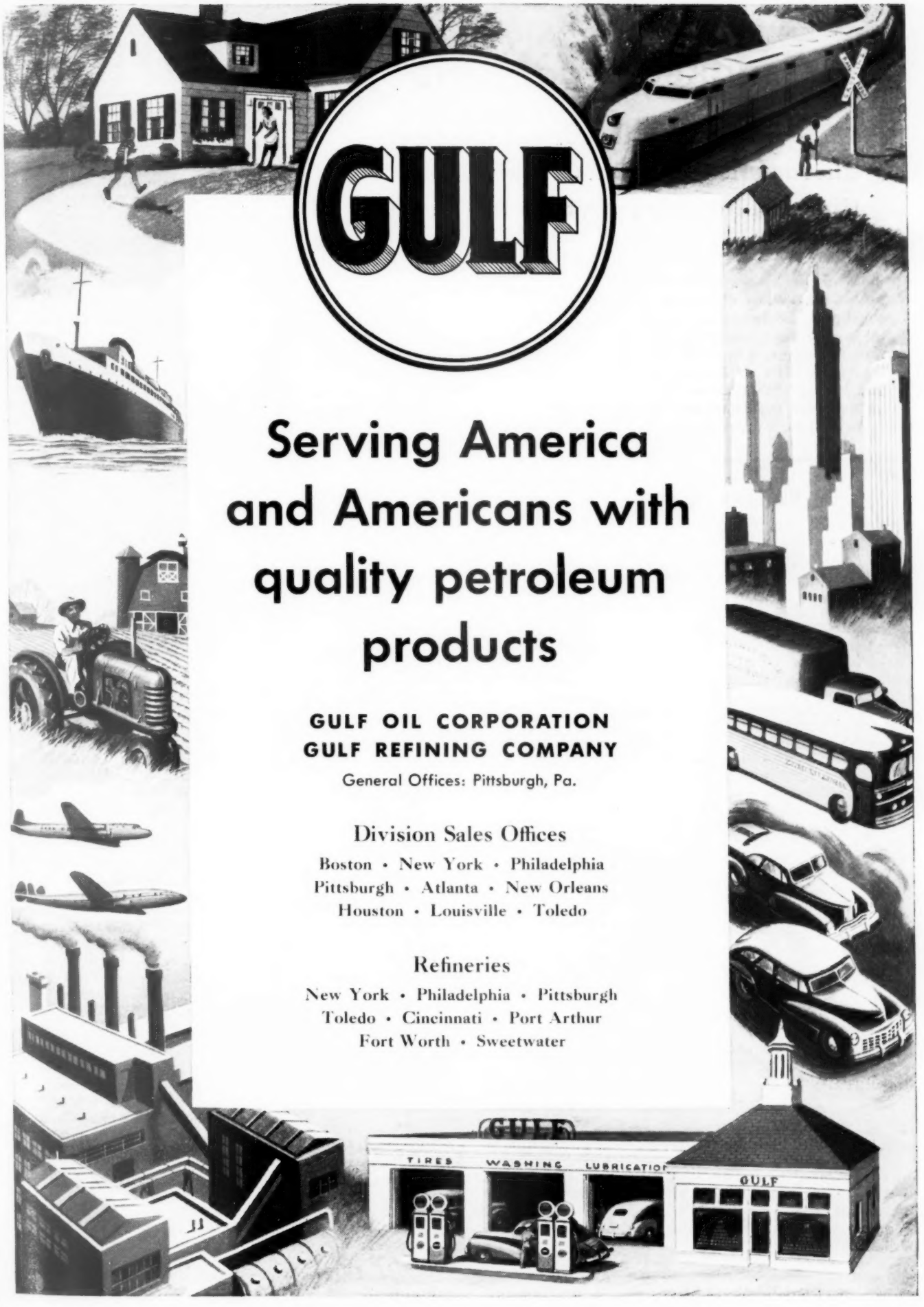
National Petroleum News checked several other large burner distributors in the Chicago area, and all reported that thus far at least they are continuing to sell burners.

Several well known makes of oil burners are being advertised here as available for immediate delivery, and the number of new burners to be installed this summer will be limited only by the number of fuel oil tanks dealers can obtain.

Dealers say some makes of domestic size burners are being freely offered to them at prices ranging from $85 to $100, and that installation prices of around $325 to $350 are taking the place of the former high level of $400. Standard 275-gal. tanks, however, command prices of from $40 to $50.

Efforts are being made to fill customers' tanks in between heating seasons, and it is expected this movement will accelerate as empty distributors' tanks are replenished. Some burner dealers are "guaranteeing" a fuel oil contract with each new burner sold.

Consumers using distillate fuels probably will get their requirements next winter, is the opinion now held by fuel oil distributors here. No optimism is felt however, over the chances of taking care of commercial and industrial users of residual fuel. Supplies are becoming more and more difficult to obtain, and the general outlook for this class of business is said to be most unfavorable.



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Cat-Cracked Fuel Oils

Their Application to Various Burners
Characteristics of Cat-Cracked Fuel
Hints on Adapting Units to the Fuel

The paper published herewith on cat-cracked fuel oils and their application to various types of oil burners was presented by William S. Sullivan of Shell Oil Co., Inc., at the ninth annual convention of Fuel Oil Distributors Assn. of New Jersey at Asbury Park, N. J., April 24.

By WILLIAM A. SULLIVAN

Senior Fuel Oil Applications and Development Engineer, Manufacturing Dept., Shell Oil Co., Inc.

Catalytically cracked distillates are here to stay and they will undoubtedly assume increasing importance in the domestic heating oil picture as time goes on. With this fact staring us in the face, coupled with the fact that millions of domestic oil burners now in use were designed to use prewar fuels, the oil burner manufacturer, dealer, and oil burner owner have a right to be concerned as to the ability of this new type of fuel oil to give performance comparable to that provided by its predecessor. And don't think for a moment this hasn't also been of major concern to the oil refiners who will have responsibility of producing this new type of fuel oil.

In our own case, long before the development of catalytic cracking had reached the stage of commercial production, an intensive study was being made to determine how the various types of oil burners now in existence, as well as those of the future, were going to react to a diet composed predominantly of catalytic distillates. This work was begun on pilot plant samples. It was continued on distillates produced commercially from various types of charging stocks and under different operating conditions, and finally the laboratory findings were backed up by an entire year of field experience on commercial blends representing millions of barrels of fuel oil distributed over all parts of the country. It was only after this latter phase of our investigation was completed that we felt we were in a position to stick our necks out with a prediction as to what effect the current trend towards the increasing use of catalytic distillates is likely to have on the quality of the home heating oils of the future.

In contrast to and in spite of the widespread adverse publicity which has attended the introduction of catalytic distillates as burner fuels, we are convinced that their continued use will in no way retard but instead may actually accelerate the remarkable pace set by the industry so far in establishing oil in the public mind as most economical and generally satisfactory form of clean, trouble-free, automatic heat available. This is not mere wishful thinking. Our tests have shown that *properly refined* catalytic distillates as a class are actually superior in many respects to comparable thermally cracked and straight run distillates of which prewar fuel oils were composed.

Stability and Cleanliness—In the first place, catalytic distillates are inherently cleaner and more stable with respect to deterioration in storage and formation of sediment than the average thermally cracked and many untreated straight run distillates. This is because catalytic cracking tends to produce a relatively high percentage of aromatic compounds which are chemically considered the most stable of any one of the four hydrocarbon groups, whereas thermal cracking tends to favor the formation of olefinic (unsaturated) hydrocarbons which are known to be much more susceptible to oxidation and thus the formation of acids, sludge, etc. It has also been found that the relatively small percentage of unstable constituents present in catalytic fuels respond quite readily to removal by acid treatment. Thus it is quite possible that cleaner fuels will result from the increased use of catalytic distillates. This should be a particularly welcome improvement at this time in view of the increasing percentage of oil burners being installed in small homes. These burners will have to operate at relatively low firing rates and thus will, no doubt, be more susceptible to clogging of the atomizing nozzle or oil metering valve than the larger sizes.

Non-Corrosive—It has also been of interest to find by both laboratory tests and actual field performance that the catalytic fuels which we have examined thus far have shown no tendency toward corrosion of metallic oil burner parts, such as copper lines, pump seals, pressure regulating valves, etc. Their superiority in this respect to many of our prewar and wartime fuels is apparently due to the fact that corrosive compounds which may be present in feed stock from which the catalytic distillates are produced, are either removed during the cracking or subsequent treating processes, or else they are chemically converted to non-corrosive forms.

Distillation Characteristics—In considering the distillation characteristics of catalytic fuel oils, we find that they are apt to contain lower percentage of light volatile fractions than prewar fuels. This is because catalytically cracked fractions with boiling points as high as 425° F. or more have high antiknock value and thus make excellent motor fuel, whereas comparable fractions from straight run or thermally cracked distillates are of little value as motor fuel and, therefore, are usually left in the kerosine or light fuel oil cuts. However, the lack of front end volatility in catalytic distillates is offset to some extent by the characteristically lower end points and 90% distillation points, which result from the relatively light charging stocks generally used in catalytic cracking operations. With a reduction in end point one can reasonably expect a lower carbon residue content, all other conditions being equal. Thus the over-all effect of the change in distillation characteristics will be negligible from the standpoint of burner performance, except in the case of a relatively small group of critical vaporizing burners which require a very volatile fuel for quick lighting from a cold start.

High Heat Value and Low Viscosity—The impression has become rather widespread that catalytic fuels as a whole are much heavier than prewar fuels. This point requires some clarification. If you are referring to the gravity of the fuel, then it would be correct to say that in general catalytic distillates are actually heavier, in the sense that they weigh more per gallon, than straight run distillates of comparable boiling range. This is a distinct advantage because the heavier the gravity of the fuel the higher it is in heat value. However, in viscosity, which is the most reliable measure of the ease with which the oil can be atomized, the difference between catalytic and straight run distillates can for all practical purposes be considered negligible. If any difference, the catalytic distillates will tend to run somewhat lighter in viscosity than straight run distillates in the same boiling range.

Low Pour Point—In pour point, due to their higher aromatic content and lower paraffinicity, catalytic distillates have been found to run lower than their predecessors, which is still another point in their favor, since this should make far easier handling in extremely cold weather.

And as we continued down the list, comparing the two types of fuel point by point, it became increasingly clear that the catalytic distillates were inferior to prewar fuels in only one important respect—under adverse burning conditions

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the catalytic fuels showed a more pronounced tendency to smoke and carbonize than straight run distillates in the same boiling range. Explanation for this lies in the difference in hydrocarbon composition between the two types of fuel.

Burning Characteristics—Catalytic fuels contain a relatively high proportion of aromatic compounds which, due to their peculiar chemical structure, are quite stable and thus tend to resist oxidation. The mechanism by which aromatics burn involves splitting apart the carbon and hydrogen and burning each element separately. Unless each carbon particle thus liberated is surrounded by air while still at high temperature, it gets away without being burned and shows up in the form of smoke, soot, or carbon. On the other hand, in the burning of straight run fuels, which are predominantly naphthenic or paraffinic in nature, combustion tends to proceed in a somewhat more orderly fashion, taking place progressively as the temperature increases, with the formation of intermediate oxidation products, which in turn are finally burned completely. Catalytic fuels require more thorough mixing with air before combustion begins or in the early stages of combustion in order to completely ignite all of the free carbon that is split off during the combustion process. And if the oil burner is designed to provide the proper burning conditions, then catalytic fuels exhibit no greater tendency to smoke than straight run fuels. This view was expressed by the author in an article which was published about two years ago. Nothing has occurred since then to alter that opinion. In fact, with an additional year of laboratory investigation and actual field experience back of us, we are more convinced now than ever that nothing will stand in the way of the oil heating industry taking full advantage of the superior characteristics that catalytic fuels have to offer, once it is thoroughly understood just what is required in the way of future burner designs as well as adaptations in existing burner installations.

With a knowledge of the inherent burning characteristics of highly aromatic fuels, it should not be too difficult to design new burners so as to provide the favorable burning conditions required. However, the adaptation of existing burner installations which for the most part were designed for fuels of prewar quality presents a somewhat different problem. But in either case better mixing of the air and oil appears to be the answer, and the extent to which this can be satisfactorily achieved in the field depends largely on the type of burner you are dealing with.

Pot-Type Burners—The successful combustion of catalytic distillates in pot-type vaporizing burners requires that ample opportunity be provided for vaporization and thorough mixing of the oil vapors with air before the fuel is exposed to the intense heat of the flame; otherwise cracking of the fuel both in the liquid and vapor phase gives rise to excessive amounts of smoke and carbon deposits. You are obviously limited as to the changes that can be made in existing pot-type burner installations, but tests conducted on a number of different burners of various makes indicated that the performance of burners of this type can be greatly improved by maintaining a sufficiently high stack draft at all times and by operating at burning rates from 20 to 25% lower than the manufacturer's rating on prewar fuels. Beyond this the success with which catalytic fuels can be handled by pot-type burners seems to be largely a matter of burner design, the most important variables being (1) the diameter and shape of the burner pot, (2) the depth of the pot, and (3) the size, number, and spacing of the primary and secondary air ports.

Vertical Rotaries—Tests conducted on vertical rotary wall-flame burners demonstrated the important role that timing plays in the mixing of the air and oil when burning catalytic fuels. With the standard low type grills clipped onto the edge of the flame rim, 50% of a given catalytically cracked fuel blended with straight run distillate was found to be about the maximum concentration that could be tolerated under the test conditions without producing excessive smoke and forming a heavy carbon build-up on the heating surfaces at the base of the boiler. However, by simply raising the grills about two inches above their normal setting, thereby affording a slightly longer time for mixing of the air and oil before the combustion process began, it was possible to burn 100% of the catalytic fuel in question without a trace of smoke and without any objectionable carbon formation over a prolonged period of operation.

Increasing the diameter of the fan, thus affording higher velocity air which gave greater turbulence and more intimate mixing of the air and oil in the early stages of combustion, was also found to give a marked improvement in the performance of vertical rotary burners on catalytic fuels.

In both cases, these were relatively simple changes but they were sufficient to bring the burning conditions in line with the fuel requirements, just as retarding the spark timing in your automobile engine is effective in suppressing the tendency of gasoline to knock or "ping". In fact, the two phenomena are closely related in many respects.

Gun-Type Burners—Taken as a whole, the low and high pressure atomizing gun-type burners were found to be the least critical to the composition of the fuel of any type tested. However, here too it was found that improved performance could be obtained on catalytic fuels, and on prewar fuels for that matter, by closer control of the air-fuel mixture.

In the majority of cases in the field, the increased tendency of catalytic fuels to smoke as compared to prewar fuels can be overcome in gun-type burners by simply opening the fan shutter and supplying more air. However, this is the easy way out and not necessarily the most desirable. The excess air introduced lowers the combustion efficiency and thus tends to nullify the gains to be realized by virtue of the higher heat content of the catalytic fuel.

In making a special study of this problem, it was found that the design of the combustion head or air turbulator was the most important single factor influencing gun-type burner efficiency. By designing the mixing head so as to maintain high velocity air at a point where it enters the oil spray, a very intimate air-oil mixture could be obtained without greatly increasing the volume of air delivered beyond the theoretical amount required to burn the oil. By this means it was possible to burn a 100% catalytically cracked fuel at a zero smoke rating with 13 to 14% CO_2 in the flue gases. And under these conditions, it was impossible to detect any difference in burning characteristics between catalytic and straight run materials, at burning rates as low as one gallon per hour.

While such advancements in burner design may be largely restricted to new burner installations for the time being, there are numerous other ways by which the performance of gun-type burners already in use can be improved. For example, the use of light weight, quick-heating refractories tends to suppress to an appreciable extent the smoke that is formed when the burner first starts up, before the combustion chamber gets hot. Careful selection of the atomizing nozzle as to size and spray angle, so as to avoid flame impingement and unnecessarily short firing cycles, also helps to insure smokeless combustion in burning the more highly aromatic fuels. The use of quick-closing cut-off valves to avoid after-burning when the burner shuts down was also found to be quite effective in reducing soot deposits and resultant loss in efficiency. In fact, our tests indicate that any changes which were effective in improving the performance of gun-type burners on prewar fuels will be equally helpful in burning the fuels of the future.

All of which leads us to conclude that as soon as the true facts with regard to the advantages as well as the shortcomings of catalytic fuels are thoroughly understood by all hands, the obstacles involved in handling the new fuels satisfactorily in the majority of existing burners as well as in those of improved design will be surprisingly simple to overcome. But the only way this can be accomplished is for all parties concerned to make an orderly and earnest effort to ferret out facts that can be established by actual test data and by discarding the various wild rumors which crop up from time to time but which have no factual basis for their existence.

Must Utilize More Propane to Increase Supply of LPG, Felt Tells Convention

Addressing the annual convention of the Liquefied Petroleum Gas Assn. in Chicago last week, Howard E. Felt, vice president, Warren Petroleum Corp., discussed LPG supply and demand. Because of the interest in Mr Felt's material on the part of both present and prospective distributors of LPG, the text of his paper is presented here.

By HOWARD E. FELT,
Vice President,
Warren Petroleum Corp.

We have to go back to the beginning of the war to remind ourselves that the urgency of the program for high octane gasoline and synthetic rubber required the production of the last drop of normal and isobutanes. Each refinery, gasoline plant and cycling plant went all out. Consequently, from then until now we have had maximum production of butanes. During the same period our domestic distribution was held quite rigidly in check by war regulations, lack of bottles, tanks and appliances. The extent of this war effort on production is revealed by figures of the Bureau of Mines and Petroleum Administration for War. 1942 was a year of construction, but by 1943 the production of LPG was 1,588,000,000 gallons. In 1944 it jumped to 3,820,000,000 gallons, and in 1945 to 4,833,000,000 gallons, an increase of over 3 times the 1943 production. During this same period domestic consumption increased only from 339,000,000 gallons to 533,000,000 gallons, or only 1.6 times the 1943 consumption. The startling thing about these figures is the number of gallons that were produced over the domestic sales. In 1943 this balance was 4 times domestic sales and in two years it grew to 8 times domestic sales. It is no wonder it was said that the industry could not absorb this swollen war production. But, what happened? The winter of 1945 and 1946 had most suppliers in an uncomfortable position—and this past winter is all too fresh in our minds to require comment.

Postwar Lessons

What are some of the lessons we should learn from this short postwar period in the development of this industry? Let me remind you of a few:

1. LPG has apparently unlimited public acceptance for its many purposes.
2. It is dangerous to count on supplies without adequate planning for distribution.
3. We must make full use of propane, either as such, or in higher vapor pressure mixtures.
4. New uses and expanded old uses are developing more rapidly than available supplies can reach those thirsty markets.

Can't Be Complacent

Lesson No. 1 needs no comment, but the National Electrical Manufacturers Assn. brochure to the electrical industry is a very strong reminder that we cannot go to sleep.

Lesson No. 2 (adequate planning) gets me a little off base into distribution, but methods of distribution have a tremendous bearing upon your supplies. Butanes and propane are produced by their manufacturers in approximately the same quantities each and every day. But, the demand in the domestic uses varies seasonally.

It is imperative that every gallon produced be saved for its immediate or deferred use, and that requires storage at points of production and distribution. Obviously, the producer and distributor cannot provide all that is necessary, and, therefore, the consumer must be relied upon to carry his part of the burden in larger tanks in his backyard if he intends to use it for heating his home, office or factory, or other strictly winter uses.

I think we are making progress along these lines, but right at this very moment there are thousands of gallons of butane and propane going back in the ground, being burned in flares and under refinery boilers that we will need very badly next winter. Present indications are that we will experience another winter of short supplies of all types of fuel: coal, oil, natural gas, and LPG. Right now coalbins and oil tanks are being filled with next winter's supplies and it behooves us to make every effort to encourage our consumers to plan ahead for their peak requirements.

The necessity for storage at the point of use cannot be overemphasized. It is generally agreed that producers and distributors cannot provide extraction and storage facilities on a year-round basis of sufficient capacity to meet peak winter requirements. The consuming public must be convinced that the LPG industry cannot even provide sufficient transportation to meet the winter requirements if this equipment is to be largely idle from May to September. Therefore, in order to operate on a uniform basis, LPG must be shipped from points of production at a uniform rate and held in distributor and consumer tanks to satisfy the immediate fluctuations in demand.

Must Use Propane

Lesson No. 3 involves the necessity for maximum utilization of propane. It hasn't been too many years ago that propane was a bothersome stepchild of the petroleum industry. It was too wild to go into gasoline, took up valuable space in fractionating towers, and it was heavy enough to cause some difficulty in gas transmission lines.

Consequently, the propane and also some butane had to come out. Too much credit cannot be given to those hardy pioneers who visualized and found a market for the propane that was then still further separated from butane. That is now the bottled gas end of our business. A lot of our plants before the war could not separate the propane from the butane, so another gang of hardy pioneers, mostly in the south and southeast, started selling the mixtures—the two making up the LPG industry. Their interest in supplies then did not compete because the bottle group only wanted propane and their sales were more even over the year—in fact, heavier in the summer because of the predominant use in cooking, hot water heating and refrigeration. Both groups had, and still have, the all-consuming common purpose of promoting the use and sale of liquefied petroleum gases.

Now, however, they have a common interest in both butane and propane because they are both dependent on the maximum exploitation of both products and because propane must make up the deficiency of butane in the over-all demand for LPG. That's why bottled gas distributors should be very much interested in the waste of butane as well as propane.

The reason I am emphasizing the maximum use of propane can be realized from the fact that today plants, which are designed to recover 95 to 100% of butanes, only recover from 10 to 40% of available propane. That is because to recover more, costs increasingly more per gallon. By this I mean that to recover more propane than the amount originally planned requires a larger plant all the way through (such as more oil circulation, refrigeration, etc.) so that the cost of recovering each gallon above the original plans mounts as the percentage of extraction increases. (The cost of extraction above approximately

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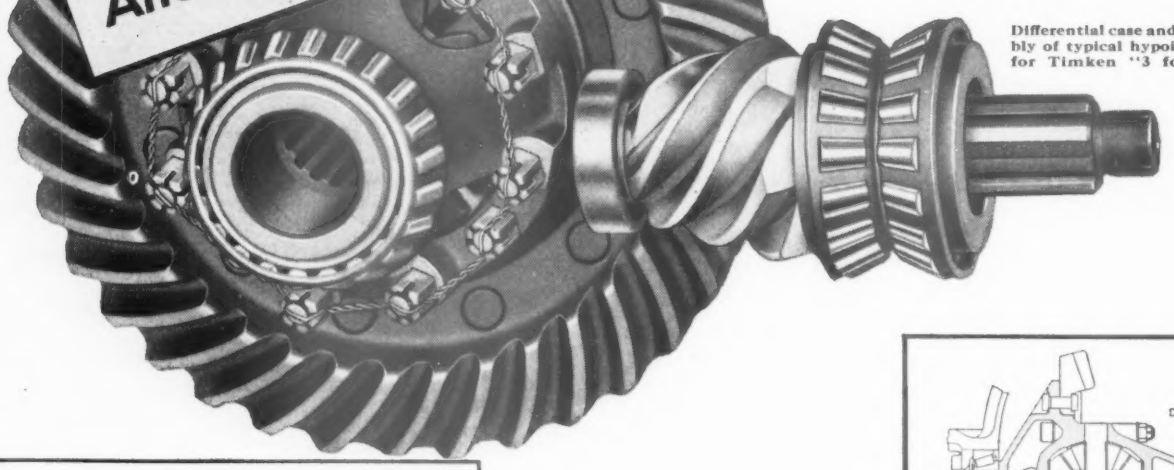
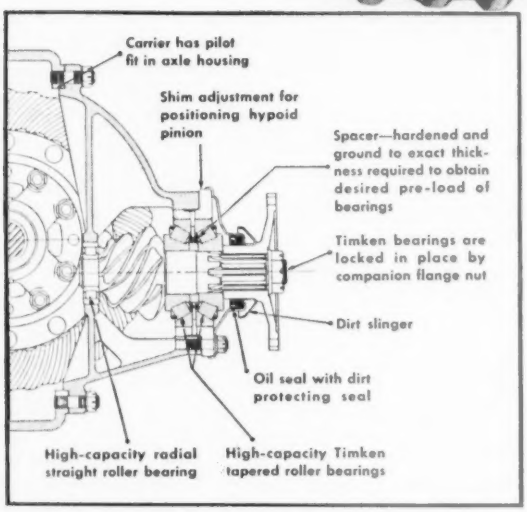
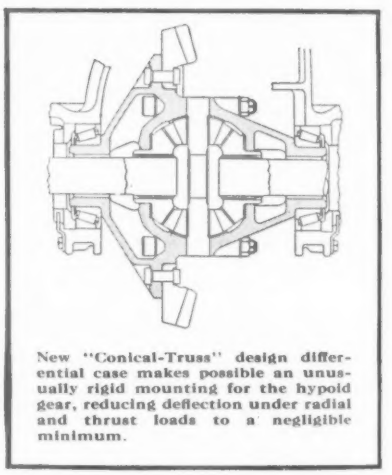


Differential case and gear assembly of typical hypoid final drive for Timken "3 for 1" Axle.


Carrier has pilot fit in axle housing
Shim adjustment for positioning hypoid pinion
Spacer—hardened and ground to exact thickness required to obtain desired pre-load of bearings
Timken bearings are locked in place by companion flange nut
Dirt slinger
Oil seal with dirt protecting seal
High-capacity radial straight roller bearing
High-capacity Timken tapered roller bearings

Improved Timken hypoid pinion bearing mounting. This construction provides a rigid mounting to resist any movement of the pinion under load.



New "Conical-Truss" design differential case makes possible an unusually rigid mounting for the hypoid gear, reducing deflection under radial and thrust loads to a negligible minimum.

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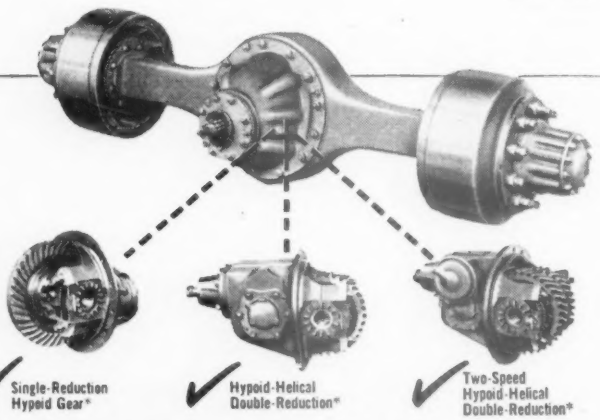

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60% to 70% is almost prohibitive in most plants.)

But, the value and the need for the product is now obvious; it is only a matter of the time necessary to install equipment and obtain transportation until this increasing production from present plants will be available to you.

The proof of what I have just said is already apparent. In 1942, of the total sales of LPG, 26% was propane and now it is estimated that in 1946 propane represented about 43% of the total sales. The result of enhanced values in increasing the recovery of propane is also quite evident when Bureau of Mines figures show that for January and February of 1947 propane production was 88,500,000 gallons as compared with 48,300,000 gallons in the same period of 1946, or an increase of 83%. It has not been so many years ago that butane did not receive much credit in the economic payout of a gasoline plant. When the war came along butane was finally counted on for its money value, but propane was incidental.

Now, with its value and apparent need to the industry, propane will assume its share of plant economics, and I want to emphasize here that, in connection with adequate storage, propane is our only salvation in any effort to supply our industry. New supplies will come, not only from new gasoline and cycling plants and improved extraction from old ones, but there is also a great potential supply still unrecovered in the processing of crude oil at refineries. Several of my refiner friends have told me that there is about 2% of propane in each barrel of crude oil processed that could be made available if the price were such that the necessary equipment would show a payout.

When I speak of the use of propane, I not only mean as a fuel by itself, but in the highest vapor pressure mixture with butane that your equipment will handle without jeopardizing that most all-important and paramount factor of this business—SAFETY. Always remember: no problem of supplies can be so important as to offer a compromise with safety.

Markets Developing Rapidly

Now, let's take a look at Lesson No. 4. Here, again, I must digress into the realms of marketing to show you how new uses and expanded markets developing faster than transportation of available production to adequate storage affect your supply outlook. I have had to change my tune enough times in the past few years to make my face a little pink. For instance, even as late as last summer I was as enthusiastic as anyone in urging a development of a summer load. I still think that is fine, especially for those of us who are producers, because, after all, our main concern is to see that our production moves each day into the best markets. But, from the supply side, I would be a little derelict if I did not point out that fuel consumed in the summer will not be available in the winter any more than fuel that is wasted at our plants in the summer.

As a consequence, I urge that you conduct the growth of your business so that your supplies will balance out. The use of a little arithmetic will show you where you are going. In free enterprise the laws of economics will eventually balance any given situation so that costs of your product and of doing business will dictate whether LPG should be saved for winter use mainly in the heat load, or used in so many worthwhile summer seasonal loads such as flame cultivation, dehydration, operation of stationary engines in lumber mills, irrigation projects, etc.; or, perhaps, a judicious spread of each with the use of adequate storage.

The Transportation Problem

Then, any discussion of supplies must cover transportation. The two are inseparable. The LPG demand has not only been running ahead of unbalanced production but of transportation. The shortage of steel and the unbalanced flow of various parts to the makers of tank cars has limited their production far below their shop capacities and the demand for tank cars. This shortage of tank cars has not only limited the amount of LPG that could be moved but has caused a maladjustment of supplies, for the reason that areas around producing points that can be served by truck transports have received more of the available supplies than their share of the over-all total, which is needed by the country as a whole. This has contributed to what might be an unhealthy expansion of the heat load in these areas and fostered small consumer tanks. If, and when, cars are available—and they are just now slowly reaching the industry—this maladjustment will gradually be corrected, but cars won't be the answer to the supply problem if storage at destinations is not available for their contents. You can stack up idle cars at plants and refineries the same as you can waste the products.

Now, I have not yet answered the paramount question in your mind as to whether there will be enough butane and propane to satisfy the demand. I don't believe anyone, under present conditions, can furnish the answer as far as the future is concerned. I do feel, however, that with adequate transportation and storage to utilize all of the production, the present demand could be taken care of. And I think that under the same conditions, we can take care of an expanding demand, if that expansion is carefully planned.

Certainly, there is every evidence around you to indicate the supplies will not keep up with demand if we keep on going the way we have been. We will not stop building gasoline and cycling plants. It is true the number built per year will be fewer than during war years, but their size and efficiency of extraction is larger and better. National conservation demands we recover as much of our light hydrocarbons as possible, not only for LPG but to save crude and for other uses, which I will review before closing. We cannot truthfully say that the LPG industry is growing faster than supplies until we find ways of using every drop that is produced. My observation is that we probably have potential markets in excess of supplies—but, again, with those old immutable laws of supply and demand setting up values, some of these potential markets we foresee now will be taken care of in other ways.

A few things I am fairly sure about—One is, this LPG business will reach far greater proportions in gallons sold than it has today, and the other is that it cannot expand willy-nilly. No longer can you just keep on expanding as it suits your individual setup. You are not dealing in the waste product or the by-product of yesterday. You are dealing in a commodity of usefulness and value, and, as in any other stable business, it will be necessary in the future to consult with your suppliers and be reasonably certain you can serve your customers adequately and make your invested capital return you a fair dividend.

What this industry needs quite badly is current data on production and sales. This is a subject which could be explored by this association, but it would be no easy job, nor could it be done overnight. Furthermore, it would require the cooperation of several allied associations and the Bureau of Mines, but your board might put the subject on its agenda for discussion at some future meeting.

Competition for the Supply

I probably should not leave this subject of "Fuel Supply" without reviewing with you briefly some of the competition you have for these supplies from other industries.

The refining and natural gasoline industries, long faced with unbalanced seasonal supplies of light hydrocarbons, are conducting tests at this time to determine the maximum gasoline volatility and vapor pressure which can be used satisfactorily in engines of current design. These tests are likely to result in increased year-round vapor pressure, by increased use of butane as well as natural gasoline, thus accomplishing four purposes:

1. More uniform consumption of refinery light ends.
2. Motor fuel value will be realized for additional butane so consumed.
3. More gallons of finished gasoline will be produced.
4. Octane number of gasoline will be improved.

The sales of LPG to chemical industries

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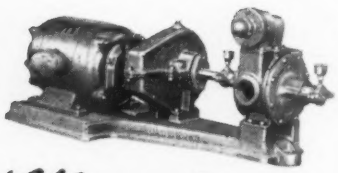

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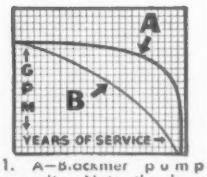
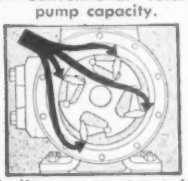
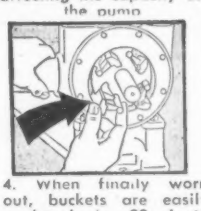


1. A—Blackmer pump capacity. Note the long sustained efficiency. B—Conventional rotary pump capacity.



2. Wear is confined to these points; the tips of the buckets, which automatically compensate for wear.

3. This much of a bucket can wear away without affecting the capacity of the pump.



4. When finally worn out, buckets are easily replaced (a 20-minute job) and pump restored to normal capacity.

are growing rapidly and these consumers are well able to pay good prices for their raw materials. In addition, they offer uniform daily outlets on a year-round basis and are frequently locating their new plants near enough to the point of supply to make possible pipeline delivery of their requirements. This method of delivery enables these industries to pay a higher price f.o.b. the producing plant. The trend of construction of new chemical industries is toward the south and southwest and will definitely continue to be a strong competitor for liquefied petroleum gases.

You have read how the demand for natural gas from our transcontinental transmission systems is also unprecedented; therefore, many utility companies have already started large LPG standby and enrichment projects. These industries, long experienced in the undesirability of peak loading, are projecting their plans for the acquisition of LPG on the basis of uniform monthly purchases and storage for peak load consumption. The quantities they are talking about are very substantial.

The requirements of LPG for synthetic rubber have been large and fairly constant up until very recently. But with the advent of a free natural rubber market, the production of synthetic rubber has declined about 40% and will probably level off somewhat below its present rate. As a result, some increased supplies of butane will become available for other uses. However, the propane formerly used in rubber manufacture in the form of styrene will wind up in the plastic industry to a large extent and cannot be considered as additional available supply.

But in the final analysis, you merchants of butane and propane to the domestic consumer should always be able to compete favorably for the available production of these products if:

1. You can offer the producer a balanced load.

2. You recognize the economic necessity, to the extent it may exist, of accepting the values placed on these products by other industries and users.

Reports Less Venezuela Output

NPN News Bureau

NEW YORK—Crude production from fields operated by Creole Petroleum Corp. in Venezuela was 574,522 b/d in April, 1947. This is a decrease from the 594,544 b/d output in March. Production in April was divided as follows: Lake Maracaibo Area and Cumarebo—423,173 b/d; Eastern Venezuela—151,349 b/d.

Canadian Crude Output Rises

Special to NPN

OTTAWA—Canadian crude oil production increased to 602,088 bbls. in March, 1947, compared with 534,510 bbls. in February, according to figures of the Department of Trade and Commerce.

Now—A National "Shopping" Service . . .

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Midwest Comment

Opinion Divided in Midwest On Oil Supply Situation

(*Continued from p. 9*)

what new types of machines will replace them and what their petroleum consumption will be. Forecasts of other industries, like manufacturers of farm tractors and automobiles on how many pieces of new equipment will be made and sold for use during any given year, go into the oil economists' estimate of future petroleum demand. In addition, thousands of home owners are personally interviewed during domestic consumer surveys.

But that is only one side of the picture. The economist must know what is going on in the oil industry, too. How many refineries are wearing out or being stranded for lack of an economical supply of crude; how many new plants are being built and what they will turn out.

With all of these details in mind—and there are many more—we suggest that oil marketers, who operate so close only to the present day demand for products, have another look at what the industry's leading economists say about the future. (NPN for April 30, page 9.)

B. I. Graves Sails for Europe

NPN News Bureau

NEW YORK—B. I. Graves, vice president and eastern operating head of Tide Water Associated Oil Co., is being sent on an extended trip to continental and Scandinavian countries. Trip carries out company's policy to recapture and rehabilitate its European business.

Mr. Graves sailed May 28 on the S. S. America, accompanied by Mrs. Graves. He will visit and confer with Tide Water's foreign subsidiaries and distributors and inspect company's European operations, especially in England, Switzerland, Holland, Germany, Sweden, Denmark and Norway.

Sohio Kerosine Prices Up

CLEVELAND — Standard Oil Co. (Ohio) May 28 announced advances in its posted prices for kerosine & light fuel oils, effective June 1, throughout Ohio. Company's statewide kerosine prices will be advanced 0.4c to 11c tank wagon, 9.4c tank car. Statewide tank wagon prices for light fuels will be increased 0.6c to 11c for Nos. 1 & 2, 0.4c to 10c for No. 3.

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Hendrickson avoids this problem by producing a complete range of sizes starting with the Model T-186, rated at 22,000 lbs.—and extending through 8 sizes to the Model T-600, with a rated capacity of 60,000 lbs. . . . every model has the *same basic design*. There is an exact size to do your job best—no "over-design" to add excessive weight—no "light-weight" design to add maintenance risk.

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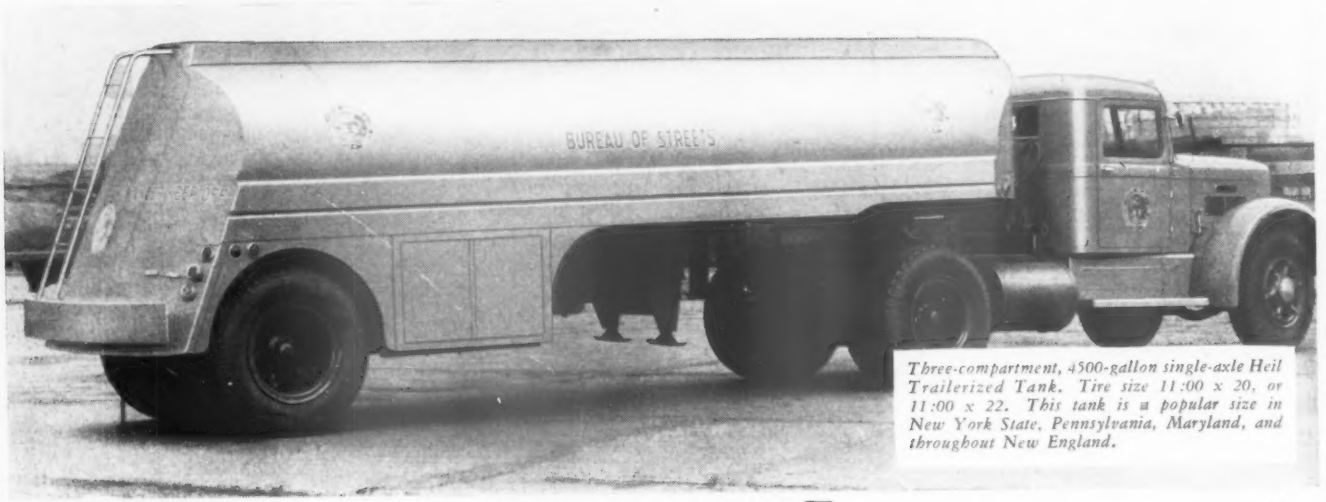
Three-compartment, 5000-gallon, tandem-axle Heil Trailerized Tank. Tire size 10:00 x 20. This unit can be used in practically every state that permits tandem semi-trailer operation.



Three-compartment, 4500-gallon single-axle Heil Trailerized Tank. Tire size 11:00 x 20, or 11:00 x 22. This tank is a popular size in New York State, Pennsylvania, Maryland, and throughout New England.

here's good news!

A limited number of Heil Trailerized Tanks, in the two models shown, are available for immediate delivery...

Three out of four orders for Heil Trailerized Tanks are repeat orders. This record speaks for itself. It says in effect that, whenever a Heil Trailerized Transport does the hauling, costs are lower.

This ability to reduce operating expenses is responsible for the great demand for Heil Trailerized units. Our substantial backlog prevents us from making our complete line available for prompt delivery. We are, however, consistently reducing our backlog.

So here's your chance to join Heil's long list of satisfied users. Send in your orders promptly — the supply is limited. Enjoy the benefits of low-cost haulage with Heil Trailerized Tanks.

3 out of every 4 orders for Heil Trailerized Tanks are repeat orders from satisfied customers

T-224

THE HEIL CO.

GENERAL OFFICES • MILWAUKEE 1, WISCONSIN

5,986,081 Trucks Registered in U. S. in '46, Gain of 15% over 1945

An increase of 15.4% in registration of trucks and tractor trucks in 1946 as compared with 1945 is reported by Public Roads Administration. Registration for the 48 states and the District of Columbia totaled 5,986,081 for Diesel and gasoline operated trucks and tractor trucks last year while registration in '45 was 5,077,089, a gain of 908,992 vehicles.

Largest gain in truck registration for the year was recorded by California with an increase of 72,497. Second was Texas with 63,347 over the 1945 total and New York third with a boost of 59,343 over the previous year's registration. California's truck and tractor truck registration figures last year show a total of 458,500 as compared with 386,003 for 1945.

PRA gives the following figures on truck and bus registrations by states:

Number and Classification of Trucks and Tractor Trucks Registered in 1946*

(Public Roads Administration figures)

	Private and Commercial				
	Gasoline	Diesel Trucks and Tractor Trucks**	Total	Publicly Owned	Grand Total
Alabama	103,837	...	103,837	4,061	107,898
Arizona	35,044	...	35,044	2,799	37,843
Arkansas	94,241	...	94,241	2,033	96,274
California	426,979	4,440	431,419	27,081	458,500
Colorado	84,583	281	84,864	3,831	88,695
Connecticut	77,118	52	77,170	3,181	80,351
Delaware	14,559	...	14,559	560	15,119
Florida	117,566	58	117,624	5,115	122,739
Georgia	122,114	...	122,114	4,478	126,592
Idaho	45,441	...	45,441	2,319	47,760
Illinois	241,628	...	241,628	9,319	250,947
Indiana	166,309	...	166,309	5,187	171,496
Iowa	116,546	...	116,546	4,856	121,402
Kansas	142,087	...	142,087	4,683	146,770
Kentucky	100,568	...	100,568	4,660	105,228
Louisiana	92,169	...	92,169	2,216	94,385
Maine	57,198	...	57,198	2,015	59,213
Maryland	84,413	...	84,413	2,459	86,872
Massachusetts	129,293	...	129,293	7,062	136,355
Michigan	176,880	...	176,880	14,811	191,691
Minnesota	131,237	...	131,237	5,224	136,461
Mississippi	95,393	143	95,536	2,813	98,349
Missouri	184,868	...	184,868	3,449	188,317
Montana	54,168	128	54,296	3,104	57,400
Nebraska	85,087	57	85,144	3,155	88,299
Nevada	10,790	...	10,790	1,230	12,020
New Hampshire	31,889	...	31,889	1,987	33,876
New Jersey	171,021	...	171,021	8,049	179,070
New Mexico	34,855	...	34,855	1,763	36,618
New York	362,993	...	362,993	18,937	381,930
North Carolina	123,748	...	123,748	7,450	131,198
North Dakota	53,754	114	53,868	1,227	55,095
Ohio	240,013	44	240,057	10,768	250,825
Oklahoma	128,124	...	128,124	4,111	132,235
Oregon†	98,418	607	99,025	4,795	103,820
Pennsylvania	329,535	...	329,535	15,639	345,174
Rhode Island	25,554	...	25,554	1,082	26,636
South Carolina	74,304	18	74,322	3,833	78,155
South Dakota	42,162	...	42,162	1,923	44,085
Tennessee	101,522	76	101,598	4,655	106,253
Texas	369,409	...	369,409	12,856	382,265
Utah	31,318	...	31,318	2,054	33,372
Vermont††	13,007	...	13,007	650	13,657
Virginia	116,746	...	116,746	3,701	120,447
Washington	117,173	...	117,173	8,076	125,249
West Virginia	63,942	...	63,942	3,040	66,982
Wisconsin	160,940	...	160,940	8,799	169,739
Wyoming	24,177	...	24,177	1,603	25,780
District of Columbia	14,954	...	14,954	1,690	16,644
Total	5,719,674	6,018	5,725,692	260,389	5,986,081

* The registrations given in this table are as reported by the states in most instances, but have been supplemented in some cases by estimates based on other sources.

** Many states were unable to report Diesel vehicles separately. Where no figure is given in this column, diesel trucks are included with gasoline-powered vehicles.

† Includes all trailers.

†† Does not include trucks under 1,500 pounds capacity, which are registered with passenger cars in Vermont.

Number and Classification of Busses Registered in 1946*

(Public Roads Administration figures)

	Privately Owned Commercial Busses				
	Gasoline	Diesel**	Total	Publicly Owned	Total
Alabama	1,849	...	3,331	1,740	5,071
Arizona	...	...	648	314	962
Arkansas	941	...	1,014	2,149	3,163
California	5,332	1,121	6,453	674	7,127
Colorado	638	8	934	658	1,592
Connecticut	1,563	136	2,455	62	2,517
Delaware	...	...	425	5	430
Florida	1,791	82	2,255	1,234	3,489
Georgia	1,916	...	3,429	1,353	4,782
Idaho	251	...	251	219	470
Illinois	...	...	3,382	549	3,931
Indiana	2,248	...	6,322	795	7,117
Iowa	830	...	1,068	1,959	3,027
Kansas	...	...	510	609	1,119
Kentucky	...	...	2,632	567	3,199
Louisiana	964	...	3,273	290	3,563
Maine	444	...	844	181	1,025
Maryland	1,799	...	2,854	129	2,983
Massachusetts	...	...	5,782	33	5,815
Michigan	...	...	1,750	3,530	5,280
Minnesota	859	...	1,859	1,158	3,017
Mississippi	3,509	116	4,668	922	5,590
Missouri	2,280	159	3,530	671	4,201
Montana	374	5	651	8	659
Nebraska	673	38	711	203	914
Nevada	150	...	150	67	217
New Hampshire	...	...	616	5	621
New Jersey	5,963	...	5,963	2	5,965
New Mexico	1,119	...	1,861	19	1,880
New York	...	...	10,510	2,788	13,298
North Carolina	2,883	...	2,883	5,478	8,361
North Dakota	262	6	268	63	331
Ohio	2,908	411	3,319	7,229	10,548
Oklahoma	1,312	...	1,908	2,544	4,452
Oregon	...	...	1,466	945	2,411
Pennsylvania	5,700	...	8,850	658	9,508
Rhode Island	688	...	823	50	873
South Carolina	3,300	96	3,396	1,341	4,737
South Dakota	...	...	233	187	420
Tennessee	3,249	153	3,402	826	4,228
Texas	...	...	2,014	6,036	8,050
Utah	...	...	341	272	613
Vermont	176	...	461	1	462
Virginia	1,992	...	2,959	1,449	4,408
Washington	1,337	212	1,549	1,527	3,076
West Virginia	1,315	...	1,348	1,228	2,576
Wisconsin	1,405	...	1,998	736	2,734
Wyoming	249	...	440	174	614
District of Columbia	2,148	...	2,148	11	2,159
Total	64,417	2,543	119,937	53,648	173,585

* This table gives bus registrations reported by the states, supplemented where possible by Public Roads Administration estimates based on other data. The figures for many states appear questionable, and are inconsistent in some respects. They are, however, the best available at the present, and are presented for such information value as they may have.

** Many states were unable to report Diesel vehicles separately. Where no figure is given in this column, Diesel busses are included with those propelled by gasoline.

Maritime Commission Sells 3 Small Surplus Tankers

NPN News Bureau

WASHINGTON — Disposal of three small surplus tankers was reported May 29 by U. S. Maritime Commission in new listing of small ship sales. They are the Roustabout, sold to Petroleum Navig. Co., Seattle, Wash., for $21,500; the Salt Creek, bought by Argentine Naval Commission for $250,000; and a Y-49 type ship sold to Erik Lindoe, Haugesund, Norway, for $100,000. Also listed was sale of a patrol boat to Superior Oil Co.

Motor Fuel Pipeline Shipments Ahead of '46

NPN News Bureau

WASHINGTON—More than 50 million barrels of motor fuel was turned into products pipelines during the first quarter of 1947, according to Bureau of Mines. Figure for January-March, 1947, was 51,719,000 bbls., compared with 44,430,000 bbls. during January-March 1946.

March, 1947, figure of 19,128,000 bbls., compares with 15,228,000 bbls. for February, 1947, and 16,281,000 for March, 1946.

SAE Automotive Diesels Session Scheduled June 12

NPN News Bureau

NEW YORK — Metropolitan Section of Society of Automotive Engineers will hold an "Automotive Diesels" meeting June 12 at Hotel Pennsylvania. J. A. Watts, Cummins Engine Co., Inc., will speak on "Co-Ordinating Mobile Diesel Equipment."

Diesel discussions later will feature Fred Fischer, Mack Co.; Charles Foell, Socony-Vacuum Oil; and F. P. Ward, Surface Trans. Co.

National Fire Protection Assn. Adopts Report On Farm Oil Storage; Delays Coin Pump Action

NPN News Bureau

CHICAGO—National Fire Protection Assn. at convention here May 26-29, adopted a report by its committee on inflammable liquids, which sets up safety standards for farm storage of petroleum products, but referred back to the committee for further study, a report opposing use of coin-operated service station pumps.

Discussion at the convention of the report on farm storage tanks resulted in only minor changes in the committee's recommendations as published in NPN for May 21, p. 28, which provides that tanks of 60 to 550-gal. capacity shall be located at least 40 ft. from buildings, and that tractors and other vehicles being filled directly from storage shall also be not less than 40 ft. from buildings.

Above ground stationary tanks are to be mounted approximately six inches above ground as protection against corrosion and equipped with permanently attached approved pumps and hoses with self-closing valves which may be locked. Elevated tanks for gravity discharge, to meet standard requirements, should be equipped with automatic, internal safety valves. Tanks located in rural districts are to be marked with name of the products they contain, and marked inflammable.

At a meeting of the NFPA Marine Section, cargo petroleum stocks were dealt with and government authorized inspection service advocated. However, some oil company safety engineers said later that their companies prefer to have their own men on ship decks during loading and unloading because of constantly changing danger factors, such as changing temperature and humidity, which alters hazards.

"With tankers exposed to direct radiation of the sun," a large company safety engineer said, "we have to think not only of explosion vapors, but also toxic vapors. We are still not very far away from the canary bird stage of test for toxic vapors. Some work has been done on a meter to measure toxic vapors the same as for meters showing flammable, explosive and thin vapors, but no successful toxic vapor meter has yet been produced."

He was of the opinion that such a meter can be developed with delicate mechanism to measure vapors toxic to man, before they become sufficiently dense to be inflammable or explosive.

$7 Million in Russian Government Petroleum Equipment Orders Placed with Dresser, Inc.

NPN News Bureau

CLEVELAND — Russian government orders totaling $7,200,000 for eight deep-drilling rigs, 26 portable drilling rigs, 10 portable cleanout rigs, over 100 pumping units, a liquid methane plant and various other miscellaneous equipment have been placed with Dresser Industries, Inc., it was revealed May 29 by J. B. O'Connor, executive vice president, who has just returned to this country after eight weeks in Moscow negotiating the sale.

Of the total order, $2 million is for equipment which Dresser companies will make for the $6 million methane plant.

Deep-drilling rigs are the latest type, capable of drilling to 15,000 ft., with automatic controls that reduce manual labor to a minimum, hydraulic control type of transmission. Rigs will be used in fields between the Volga and Urals in Kuibysheve.

Rambler rigs, with portable equipment capable of drilling to 6,000 ft.; clean-out rigs, capable of operating to 9,000 ft.; and pumping units will be put to work for rehabilitation purposes in Maikop field that was nearly destroyed during the war.

Stupendous Undertaking

"The Russian program of petroleum and gas rehabilitation and development, which is part of the current 5-year plan, is a really stupendous undertaking," Mr. O'Connor stated. "To understand it, one must bear in mind that the Russian program embraces plans for the entire nation; that it is much larger in its potentialities than would be a similar program conducted by any one company in the United States; and that eventual possibilities are unlimited because of the vast reserves of crude which as yet have hardly been tapped.

"In carrying out this program the Russians are using the finest and most modern type of equipment. I talked with top technicians in the production, refining, natural gas, and other divisions of the program who are truly experts in their fields and who uniformly possess an almost unbelievable capacity for a hard day's work. It was interesting that many of them had in past years spent some time in the United States and in fact I had first become acquainted with many of them upon their visits to the States in prewar years.

"As an example of modernization, in their cracking units they are now replacing pumps of the horizontal reciprocating type by those of the centrifugal hot oil type.

"The Russians are determined to rehabilitate the fields destroyed by the war by clean-out, repair and new drilling. In addition, they intend to develop new fields by deep-drilling methods just as modern as those employed in our own country.

"Of particular interest is the natural gas pipeline running between Saratov and Moscow. . . It is expected that the increased supply of natural gas to Moscow will relieve pressure on the railroads that are now overtaxed by carrying peat, lignite and fuel oil.

"I inspected this pipeline. It is a good job.

"This is the line which will be served by the liquid methane plant. . . Plant will handle storage of liquefied natural gas for stand-by and peak-load purposes."

Goodrich, Pure and Gulf Reduce Retail Tire Prices

NPN News Bureau

CLEVELAND—B. F. Goodrich Co. announced on May 31 a reduction of approximately 10% in retail prices of passenger car tires and tubes. Pure Oil Co. on June 2 and Gulf Tire and Supply Co. on June 3 made similar announcements. At NPN press time no other major tire or oil companies had followed.

All indicated that the reduction would be shared about 50-50 between the manufacturer and outlets.

Most companies, those that have not yet reduced as well as those that have, said dealers would be protected against loss due to any price reductions on tires delivered or bought within the past 30 days.

Goodrich's retail prices, ex tax, on three popular sizes in 4-ply tires are:

Size	Old Price	New Price
6.00 x 16	$16.10	$14.40
6.50 x 15	19.05	17.10
6.50 x 16	19.55	17.45

Commercial tire prices were not affected.

Deaths

G. L. Kothny, industrial equipment and vice president and general manager of Sperry-Sun Wells Surveying Co., a subsidiary of Sun Oil Co., died May 28 at Bryn Mawr Hospital, Philadelphia, where he had been a patient for the past four weeks.

° ° °

Henry L. Snyder, Sr., 85, died May 27 at his home in Wilkinsburg, Pa. One of the pioneers in the oil and gas business, he took an active part in the development of this industry in West Virginia, Ohio, Pennsylvania, Arkansas and Louisiana. It is said that chiefly on his recommendation in 1909 that the Benedum-Trees and Booth and Flinn interests of Pittsburgh built the present Arkansas Natural Gas Corp. system from Vivian, La., to Little Rock, Pine Bluff and Hot Springs, Ark. In 1916 he resigned from Arkansas Corp. and went with Libby Owens Glass Co. and DuPont interests to develop a gas reserve for their manufacturing plants at Fairmont, Clarksburg and Charleston, W. Va. Until the time of his retirement, he was employed by Benedum-Trees as consulting engineer. He leaves one daughter and three sons.

Reach Basis for New Iraq Petroleum Pact

NPN News Bureau

NEW YORK—Standard Oil Co. (N. J.) disclosed that basis for new agreement by major partners of Iraq Petroleum Co., "acceptable to the French participants" had been reached after series of conferences in London. If new agreement is concluded it will replace original "Red Line" Agreement which was instrumental in French taking legal action to prevent Standard and Socony-Vacuum Oil Co. from acquiring interest in Arabian American Oil Co. Holding up conclusion of new agreement, according to Standard Oil officials who recently returned from London, is fact that new basis has not yet been accepted by C. S. Gulbenkian, who owns 5% of Iraq Petroleum Co. through his ownership of Participations and Investments, Ltd.

Standard Oil Co. spokesman declared June 2 that if agreement is signed on new basis, production of Iraq Co. will be expanded substantially, and partners would obtain crude in accordance with their needs rather than in fixed proportion to total production as at present. Production increase would not be affected until about 1952, pending completion of additional pipeline capacity. New agreement will eliminate previous restrictions against independent action by the partners in developing oil resources "within a large area of the Middle East."

Standard stated that pending conclusion of agreement there is no change in status of proposed acquisition of stock by it in Arabian American Oil Co. On March 12 Standard and Socony-Vacuum announced that stock deal had been postponed until settlement of legal issues could be made or new agreement reached among American, British, Dutch and French partners of Iraq Petroleum Co. No statement was issued by Socony-Vacuum regarding development of new agreement, but negotiations were understood to have proceeded according to mutual interests of both companies.

Crude Prices

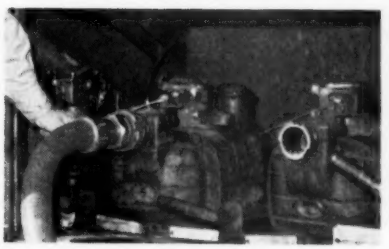
Texas Co., effective June 1, withdrew posting for Wilson Creek, Colo., crude.

S. O. Ohio advanced Lima, O., crude 15c to $2.00 per bbl., effective Apr. 1, and an additional 20c to $2.20 per bbl., effective June 1.

CORRECTIONS: Pan-American's posting for Willamar, Tex., crude has been $1.80 per bbl. on & since March 10. Humble's postings for Hawkins, Sand Flat (Paluxy Sand) & Talco, Tex., crudes extend to $1.70 for 29 & above gravity, instead of $1.62 for 25 & above as shown in recent issues of NPN.

For complete crude price schedules, see pages 54 & 55 of May 28 NPN.

USES (S&J) SAFETY VALVES



SHELL OIL COMPANY is another of the major marketers of petroleum products who use S. & J. Internal Hydraulic Safety Valves in the truck tank compartments of many of their delivery trucks.

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1213 West Third Street **Cleveland 13, Ohio**

Gasoline Demand Increases; Prices Generally Steady

Although price levels for refined products remained generally steady in most refining and terminal areas during last week in May, continuing pressure from buyers was reflected in spotty increases in prices for some products. Demand for gasoline was reported heavier throughout country, due in part to holiday increase. Call for distillate fuels remained well above comparable period last year, and industrial demand for heavy fuels continued to exceed offerings in several areas. One Atlantic Coast supplier advanced his residual fuel prices 10c per bbl. at beginning of week at all terminals in his marketing territory from Maine to Louisiana, and three other suppliers posted similar increase for Nos. 5 and 6 fuels at middle Atlantic points.

Gasoline was reported increasingly tight in Midcontinent, Midwest, along Eastern Seaboard and at the Gulf. Suppliers' posted prices remained unchanged for most part, but at New York Harbor and Boston premiums ranging up to 0.6c per gal. were offered, and in Central U. S. scanty offerings were made contingent on buyer having cars. Cargo offerings at the Gulf were almost impossible to find, and sellers without exception were reported seeking either crude or other product in exchange. In Central Michigan some refiners were already allocating supplies, and gasoline was reported nearly as tight in Western Penna.

As week ended, higher prices for No. 2 fuel and kerosine were quoted by two New York Harbor suppliers, and prices for distillates were described as extremely firm at other points along coast. Great Lakes and midwestern buyers continued to seek light and heavy fuels and were offering premiums. In Midwest, on other hand, steel mills were beginning to shy away from high asking prices for residuals. However, suppliers at the Gulf reported continuing inquiry for up river shipments of residual fuels.

ATLANTIC COAST — Prices for residual fuels ranged higher the past week at several seaboard points as three suppliers reported increases of 10c per bbl. in their prices for No. 6 and bunker "C" fuels. Posted prices for light fuels remained unchanged, suppliers said, but at New York sale of 12,000 bbls. of No. 2 fuel to jobber was reported at 7c, 0.3c higher than generally posted barge price. A third supplier at New York Harbor whose posted price for No. 5 fuel 0.10 pour had been $2.67 said he was advancing his price to $2.77 to his regular accounts and reported spot sale of 12,000-bbl. lot to jobber at $2.85.

Gasoline demand continued strong, according to suppliers, and premiums were offered at middle Atlantic ports. At New York, active inter-supplier inquiry for light fuels was reported, and jobbers were said to be anxious to fill storage before expiration of contracts at month end.

New York Harbor supplier quoting 9.4c for barge lots of regular-grade gasoline said he had received offers from buyers of 10c. Second harbor supplier reported 10,000-bbl. sale of Ethyl gasoline for early June shipment at 11.25c.

New postings by supplier who reported increases in his prices for No. 6 and bunker "C" fuels were $2.32 at New York and Baltimore, $2.28 at Norfolk, $2.23 in Savannah, $2.18 in Jacksonville, and $2.13 in Tampa. Two other suppliers at New York Harbor also quoted $2.32 while seven continued to ask $2.22. At Boston and Philadelphia, one additional supplier reported advancing his price 10c per bbl. These suppliers also increased their prices of No. 5 fuel 10c per bbl.

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GULF COAST — All products remained closely held at the Gulf during the short holiday of past week, according to reports, and no sales of cargo lots at flat prices were disclosed. Buyers and sellers agreed that never in their experience had they seen the market so tight. Suppliers with product to sell were said to be insisting on getting crude or another product in return, regardless of price placed upon offering. Acuteness of situation was reflected in Army's tentatively contracting for one cargo of gasoline with escalator clause provision.

Offers of buyers seeking products with nothing to offer in return ranged higher than past week, trade sources said. One supplier said he had had offers of from $2.25 to $2.50 for bunker "C" fuel and declared that buyers indicated they would pay 7.625c for kerosine, 6.625c for 48-52 D.I. gas oil and 8.625c for 70-72 oct. leaded gasoline. Other sources reported offers of 9 to 9.125c for regular-grade gasoline "regardless of jump." One trader declared that "any supplier who has material for June lifting with no strings attached can pretty well name his own price within reason."

Sale was reported of 130,000-bbl. cargo of 70-72 leaded gasoline by East Coast supplier to Army Quartermaster for early June lifting.Sale was unique in that it represented departure from Army's previous flat-price buying policy. Price for cargo was based on average of published Gulf quotations plus freight to point of lifting and involved escalator clause similar to that in Navy contract allowing for possible fluctuation in prices before date of lifting.

Pressure on market was said to remain strong from government requirements which were not being fully covered, from foreign cargo buyers and from midwestern tank car and barge buyers. In addition, inquiry from Atlantic Coast buyers remained active.

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WESTERN PENNA. — Lube prices ranged higher in lower field the past week as refiner reported 2c advance in his postings for cylinder stocks and 1c increase in his price of 25 pour bright stock. Prices for most other products remained unchanged, refiners said. Demand for gasoline in both upper and lower field was reported on increase with approach of holiday weekend and motoring season. Light fuel shipments remained at high rate, it was said, and domestic call for waxes continued strong.

Several refiners expressed concern over meeting gasoline demand during summer months. In lower field, refiner who canvassed other refiners in area for gasoline said "nobody has any extra to sell." Two refiners said they were facing increased summer gasoline demand with "working inventories only."

Call for light fuels remained heavy, according to some refiners, and tank car shipments of No. 2 fuel were reported coming into area from Baltimore, New York Harbor, and Philadelphia. Heavier fuel shipments this spring over last was attributed to industrial users converting from coal to oil and increased construction of factory storage tanks. Refiners reported several inquiries from industrial users for fall and winter supply of No. 2 fuel, and two described usual build-up of light fuel inventories beginning June 1 as "improbable."

New postings by refiner reporting advances in his lube prices were 31c for 600 s.r., 32c for 650 s.r., 33c for 600 flash, and 41c for 25 pour bright stock. Quotations for bright stock at week end ranged from 39c by one refiner to 42.5c by another. Spot offerings of lubes were said to be very scarce, and several refiners said they would have no bright stock or neutrals for sale for periods ranging up to 60 days.

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MIDCONTINENT — Heavy demand was reported for all products the past week, and Midcontinent refiners generally said they were holding their production for regular customers. Gasoline was reported increasingly tight and shipments in most areas were said to be running above May of last year. Prices generally were reported unchanged.

Residual fuels continued in biggest demand. Three sales of No. 6 were re-

Summary of Daily Gasoline Prices (May 27 through June 2)

U. S. Motor (ASTM octane)	Monday June 2	Friday May 30	Thursday May 29	Wednesday May 28	Tuesday May 27
78-78.5 octane Ethyl:					
Oklahoma	(3)8.75–9.5(1)	(3)8.75–9.5(1)	(3)8.75–9.5(1)	(3)8.75–9.5(1)	(3)8.75–9.5(1)
Mid-Western (Group 3 basis)	(3)8.75–9.5(1)	(2)8.75–9.5(1)	(2)8.75–9.5(1)	(2)8.75–9.5(1)	(2)8.75–9.5(1)
N. Tex. (For shpt. to Tex. & N.M. dest'ns)	(1)9–10.25(1)	(1)9–10.25(1)	(1)9–10.25(1)	(1)9–10.25(1)	(1)9–10.25(1)
W. Tex. (For shpt. to Tex. & N.M. dest'ns)	(3)9.25–9.5(1)	(3)9.25–9.5(1)	(3)9.25–9.5(1)	(3)9.25–9.5(1)	(3)9.25–9.5(1)
E. Tex. (Truck Tnsp.)	(1)9–9.5(1)	(1)9–9.5(1)	(1)9–9.5(1)	(1)9–9.5(1)	(1)9–9.5(1)
Cent. W. Tex. (Truck Tnsp.)	(1)9–9.25(1)	(1)9–9.25(1)	(1)9–9.25(1)	(1)9–9.25(1)	(1)9–9.25(1)
73-75 octane:					
Oklahoma	(5)8–8.5(1)	(5)8–8.5(1)	(5)8–8.5(1)	(5)8–8.5(1)	(5)8–8.5(1)
Midwestern (Group 3 basis)	(5)8–8.25(3)	(5)8–8.25(3)	(5)8–8.25(3)	(5)8–8.25(3)	(5)8–8.25(3)
N. Tex. (For shpt. to Tex. & N.M. dest'ns)	(2)8–8.3(1)	(2)8–8.3(1)	(2)8–8.3(1)	(2)8–8.3(1)	(2)8–8.3(1)
W. Tex. (For shpt. to Tex. & N.M. dest'ns)	(3)8.25–8.5(1)	(3)8.25–8.5(1)	(3)8.25–8.5(1)	(3)8.25–8.5(1)	(3)8.25–8.5(1)
E. Tex. (Truck Tnsp.)	(1)8–8.5(1)	(1)8–8.5(1)	(1)8–8.5(1)	(1)8–8.5(1)	(1)8–8.5(1)
Cent. W. Tex. (Truck Tnsp.)	(1)8–8.25(1)	(1)8–8.25(1)	(1)8–8.25(1)	(1)8–8.25(1)	(1)8–8.25(1)
63-66 octane:					
Oklahoma	....	....	....	....	....
Midwestern (Group 3 basis)	7.625(1)	7.625(1)	7.625(1)	7.625(1)	7.625(1)
N. Tex. (For shpt. to Tex. & N.M. dest'ns)	....	....	....	....	....
W. Tex. (For shpt. to Tex. & N.M. dest'ns)	(1)7.875–8(2)	(1)7.875–8(2)	(1)7.875–8(2)	(1)7.875–8(2)	(1)7.875–8(2)
E. Tex. (Truck Tnsp.)	....	....	....	....	....
Cent. W. Tex. (Truck Tnsp.)	....	....	....	....	....
60 octane & below:					
Oklahoma	(4)7.25–7.5(3)	(4)7.25–7.5(3)	(4)7.25–7.5(3)	(4)7.25–7.5(3)	(4)7.25–7.5(3)
Midwestern (Group 3 basis)	(5)7.25–7.75(1)	(5)7.25–7.75(1)	(5)7.25–7.75(1)	(5)7.25–7.75(1)	(5)7.25–7.75(1)
N. Tex. (For shpt. to Tex. & N.M. dest'ns)	(1)7.5–7.75(2)	(1)7.5–7.75(2)	(1)7.5–7.75(2)	(1)7.5–7.75(2)	(1)7.5–7.75(2)
W. Tex. (For shpt. to Tex. & N.M. dest'ns)	(2)7.5–7.75(2)	(2)7.5–7.75(2)	(2)7.5–7.75(2)	(2)7.5–7.75(2)	(2)7.5–7.75(2)
E. Tex. (Truck Tnsp.)	(1)7.25–7.75(1)	(1)7.25–7.75(1)	(1)7.25–7.75(1)	(1)7.25–7.75(1)	(1)7.25–7.75(1)
Cent. W. Tex. (Truck Tnsp.)	(1)7.5–7.75(1)	(1)7.5–7.75(1)	(1)7.5–7.75(1)	(1)7.5–7.75(1)	(1)7.5–7.75(1)
Motor Gasoline, 78-78.5 oct. (Ethyl) (a)					
New York harbor	(2)10.3–12(1)	(2)10.3–12(1)	(2)10.3–12(1)	(2)10.3–12(1)	(2)10.3–12(1)
New York harbor, barges	(1)10.2–10.4(1)	(1)10.2–10.4(1)	(1)10.2–10.4(1)	(1)10.2–10.4(1)	(1)10.2–10.4(1)
Philadelphia	(1)10.3–11.8(1)	(1)10.3–11.8(1)	(1)10.3–11.8(1)	(1)10.3–11.8(1)	(1)10.3–11.8(1)
Philadelphia, barges	(1)10.2–10.4(1)	(1)10.2–10.4(1)	(1)10.2–10.4(1)	(1)10.2–10.4(1)	(1)10.2–10.4(1)
Baltimore	(1)10.3–11.5(2)	(1)10.3–11.5(2)	(1)10.3–11.5(2)	(1)10.3–11.5(2)	(1)10.3–11.5(2)
Baltimore, barges	(1)10.2–10.4(1)	(1)10.2–10.4(1)	(1)10.2–10.4(1)	(1)10.2–10.4(1)	(1)10.2–10.4(1)
Motor Gasoline 74-76 oct.					
New York harbor	(2)9.3–10.5(1)	(2)9.3–10.5(1)	(2)9.3–10.5(1)	(2)9.3–10.5(1)	(1)9.3–10.5(1)
New York harbor, barges	(1)9.2–10(1)	(1)9.2–10(1)	(1)9.2–10(1)	(1)9.2–10(1)	(1)9.2–10(1)
Philadelphia	(1)9.2–10.3(3)	(1)9.2–10.3(3)	(1)9.2–10.3(3)	(1)9.2–10.3(3)	(1)9.2–10.3(3)
Philadelphia, barges	(1)9.1–9.4(1)	(1)9.1–9.4(1)	(1)9.1–9.4(1)	(1)9.1–9.4(1)	(1)9.1–9.4(1)
Baltimore	(2)9.3–10(4)	(2)9.3–10(4)	(2)9.3–10(4)	(2)9.3–10(4)	(2)9.3–10(4)
Baltimore, barges	(1)9.2–9.4(1)	(1)9.2–9.4(1)	(1)9.2–9.4(1)	(1)9.2–9.4(1)	(1)9.2–9.4(1)
Motor Gasoline:					
Western Penna., Bradford-Warren:					
74-76 Oct.	(1)8.75–9.2(1)	(1)8.75–9.2(1)	(1)8.75–9.2(1)	(1)8.75–9.2(1)	(1)8.75–9.2(1)
Western Penna., Other Districts:					
74-76 Oct.	(3)8.75–9.25(1)	(1)8.5–9.25(1)	(1)8.5–9.25(1)	(1)8.5–9.25(1)	(1)8.5–9.25(1)

NOTE: Gasoline prices are reported in each day's Platt's OILGRAM Daily Price Service. Figures shown in parentheses indicate number of companies quoting the lows & highs of the ranges.

(a) Postings of one supplier quoting the lows at Philadelphia & Baltimore are for Min. 80 Oct. (A.S.T.M.) Ethyl.

ported by Oklahoma refiners: 10,000 bbls. at $2.30 per bbl. for May and June delivery to a broker; 10 cars at $1.90 per bbl. for prompt shipment to a broker; and 20,000 bbls. at $1.90 per bbl. to a railroad for May and June shipment. West Texas refiner also reported selling 15,000 bbls. of No. 6 at $2.10 per bbl. for prompt shipment to a broker.

Slight inventory increases in light fuels were reported by some refiners, but cold snap that hit the Midcontinent late in the week was expected to cause spurt in already above-normal demand. Several refiners said they still had not been able to catch up on back orders. Oklahoma refiner reported sales of "about 40 cars" of No. 2 straw fuel at 6.5c for immediate shipment to brokers and other refiners. Spot prices of other Oklahoma refiners for No. 2 fuel were reported unchanged, ranging from 6.125 to 6.625c.

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MIDWESTERN (Chicago-E. St. Louis area)—Reports of scarcity and higher open market prices for gasoline continued in the Midwest this past week. Scattered offerings, however, of gasoline were reported by marketers at 8.75c for Ethyl and 8c for regular-grade gasoline, but all offerings required buyers to furnish tank cars which were almost unobtainable, they said.

Refiners prices for regular-grade gasoline ranged from 8 to 8.25c and for Ethyl 8.75 to 9.5c, Group 3. Refiner quoting 8c for regular-grade reported buying 10 cars for which he paid 8.25c, Group 3. Previously reporting single purchases of 25-50 cars, his last purchase of 10 cars was made up of 2 cars from one source and 8 cars from another. Largest single purchase made in May was one of 15 cars and in all instances, he said, "I had to furnish the cars."

Several marketers reported steel mills were no longer interested in No. 6 fuel oil at top prices. According to one marketer, who tried to sell 10 cars at $2.50 bbl., Group 3, "the mills are glutted with fuel oil as result of heavy buying early in May." Another source estimated mills had sufficient fuel oil for at least another three weeks. During week, one refiner advanced his price for No. 6 fuel from $2.00 to $2.05 bbl., while four others continued to post prices ranging from $1.90 to $2.50.

Light fuel oils continued firm and marketing sources reported no offerings from "the Group," because refiners were still behind on back orders. Range oil originating in Chicago refining district, however, was said to be "loosening up." One marketer reported sales totaling 100,000 gals., at 8.8c F.O.B. Chicago refinery district and another said he could buy range oil "in the district" at 8.7c.

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CENTRAL MICHIGAN — Refiners continued to report shortages of all products during last week in May. Gasoline was being allocated by some refiners, while others said they were supplying only regular accounts and watching withdrawals carefully. Most refiners said they expected gasoline to be short during the summer months and predicted some service stations would be temporarily out of gasoline at times. Two refiners said part of the trouble would result from inadequate transportation. According to them, railroads had already been responsible for spotty shortages of products reported by two major oil companies.

Early in the week, refiner reported price advances for four of his products. His new price for heavy fuel oil was 7c. Three other refiners continued posting 6.125c and three 6.25c. His other reported advances were 0.125c for No. 2 straw to 7.875c; 0.125c to 7.625c for No. 3 gas oil; and 0.25c to 7c for U G. I. gas oil.

Other refiners reported no price changes for their products.

OIL PRICE SECTION

Due to scarcity of supplies, sellers generally refuse to take on new customers and limit offerings to regular customers only.

At Refineries and Terminals and by Tank Wagon

Prices herewith are reproduced from Platt's *OILGRAM* Daily Oil Price Service, associated with National Petroleum News, whose representatives in all *NPN-OILGRAM* offices devote their time exclusively to reporting oil industry prices everywhere.

Prices shown in tables are sales prices or quotations or general offers or posted prices by refiners, by pipeline terminal operators, and by tanker terminal operators; for current sales and shipments; for the business day or period stated; except Tank Wagon prices, prices are for bulk lots such as tank car, truck transport, barge; prices applying to barges or cargoes or truck transport lots only, so designated; FOB refineries or terminals; in cents per gal. except where shown in bbls. of 42 gals.; wax and petrolatums in cents per pound; ex all fees and taxes; for crude oil and its products lawfully produced and transported; reported as received by *OILGRAM* and National Petroleum News but not guaranteed; for subscribers' private use only and not for resale or distribution or publication. Octane ratings are ASTM unless otherwise noted. Parenthetical figures before and after prices indicate number of companies quoting the lows and highs of the ranges. For further details of price conditions apply to any *NPN—OILGRAM* office or see back of any *OILGRAM* Price Service invoice.

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Refinery Prices

Gasoline

	Prices in Effect	
OKLAHOMA	June 2	May 26
78-78.5 Oct.		
Ethyl	(3)8.75–9.5(1)	(3)8.75–9.5(1)
73-75 Oct.	(5)8–8.5(1)	(5)8–8.5(1)
63-66 Oct.		
60 Oct.& below	(4)7.25–7.5(3)	(4)7.25–7.5(3)
MID-WESTERN (Group 3 basis)		
78-78.5 Oct.		
Ethyl	(2)8.75–9.5(1)	(3)8.75–9.5(1)
73-75 Oct.	(5)8–8.25(3)	(5)8–8.25(3)
63-66 Oct.	7.625(1)	7.625(1)
60 Oct.& below	(5)7.25–7.75(1)	(5)7.25–7.75(1)
CHICAGO—(FOB Chicago district refineries & p.l. terminals)		
78-78.5 Oct.		
Ethyl	10.875(1)	10.875(1)
74-76 Oct.	10.125(1)	10.125(1)
N. TEX. (For shpt. to Tex. & N.M. dest'ns.)		
78-78.5 Oct.		
Ethyl	(1)9–10.25(1)	(1)9–10.25(1)
73-75 Oct.	(2)8–8.3(1)	(2)8–8.3(1)
63-66 Oct.		
60 Oct.& below	(1)7.5–7.75(2)	(1)7.5–7.75(2)
W. TEX. (For shpt. to Tex. & N.M. dest'ns.)		
78-78.5 Oct.		
Ethyl	(3)9.25–9.5(1)	(3)9.25–9.5(1)
73-75 Oct.	(3)8.25–8.5(1)	(3)8.25–8.5(1)
63-66 Oct.	(1)7.875–8(2)	(1)7.875–8(2)
60 Oct.& below	(2)7.5–7.75(2)	(2)7.5–7.75(2)
E. TEX. (Truck Tnspt.)		
78-78.5 Oct.	(1)9–9.5(1)	(1)9–9.5(1)
73-75 Oct.	(1)8–8.5(1)	(1)8–8.5(1)
60 Oct.& below	(1)7.25–7.75(1)	(1)7.25–7.75(1)
CENT. W. TEX. (Truck Tnspt.)		
78-78.5 Oct.	(1)9–9.25(1)	(1)9–9.25(1)
73-75 Oct.	(1)8–8.25(1)	(1)8–8.25(1)
60 Oct.& below	(1)7.5–7.75(1)	(1)7.5–7.75(1)
KANSAS (For Kansas destinations only)		
78-78.5 Oct.		
Ethyl	9.5(5)	9.5(5)
73-75 Oct.	8.5(6)	8.5(6)
63-66 Oct.		
60 Oct.& below	(1)7.7–8(1)	(1)7.7–8(1)
ARK. (For shipments to Ark. & La.)		
78-78.5 Oct.		
Ethyl	9.25(1)	9.25(1)
73-75 Oct.	8.25(1)	8.25(1)
60 Oct.&below, unleaded	7.5(1)	7.5(1)
WESTERN PENNA.		
Bradford-Warren:		
74-76 Oct.	(1)8.75–9.2(1)	(1)8.75–9.2(1)
Other districts:		
74-76 Oct.	(3)8.75–9.25(1)	(1)8.5–9.25(1)
CENTRAL MICHIGAN (FOB Central Mich. refinery group basis; for shpt. within Mich.; shpts. may originate at plants outside Central group.)		
U.S. Motor:		
78-78.5 Oct.	(1)10.875-11.75(1)	(1)10.875-11.75(1)
73-75 Oct.	(1)9.875–11(1)	(1)9.875–11(1)
Str. run gasoline, excl. Detroit shpt.	(1)8.625–9.25(1)	(1)8.625–9.25(1)
Prices in Effect	**June 2**	**May 26**
OHIO (S. O. Ohio quotations for statewide delivery and subject to exceptions for local price disturbances.)		
73-75 oct.	10.5	10.5
CALIFORNIA		
Los Angeles dist.:		
80-82 Oct.		
Ethyl	(1)10–13.5(1)	(1)10–13.5(1)
74-76 Oct.	(2)9–11.25(2)	(2)9–11.25(2)
San Fran. dist.:		
80-82 oct.		
Ethyl	(1)13.5–13.75(1)	(1)13.5–13.75(1)
74-76 Oct.	(1)10–11.75(1)	(1)10–11.75(1)

Kerosine, Gas & Fuel Oils

OKLAHOMA		
41-43 w.w kero.	(1)6.875-7.125(1)	(1)6.875-7.125(1)
42-44 w.w.	(3)6.875–7.25(2)	(3)6.875–7.25(2)
Range oil	(1)6.5–6.75(4)	(1)6.5–6.75(4)
58 & above		
D.I. Diesel.	(2)6.75–7.125(1)	(2)6.75–7.125(1)
No. 1 p.w.	(4)6.625–7(1)	(4)6.625–7(1)
No. 1 straw	6.625(1)	6.625(1)
No. 2 straw.	(2)6.125-6.625(1)	(2)6.125-6.625(1)
No. 3	6.125(1)	6.125(1)
No. 6	(2)$1.90–2.50(2)	(2)$1.90–2.50(2)
14-16 grav. fuel	$1.90(1)	$1.90(1)*

* This price correct for May 26; shown incorrectly in May 28 NPN.

MIDWESTERN (Group 3 basis)		
41-43 w.w.	(1)6.75–7.125(1)	(1)6.75–7.125(1)
42-44 w.w.	(2)6.875–7.25(1)	(2)6.875–7.25(1)
Range Oil	6.625(2)	6.625(2)
58 & abv.		
D.I. Diesel.	(1)6.5–7.125(1)	(1)6.5–7.125(1)
No. 1 p.w.	(1)6.375-6.625(2)	(1)6.375-6.625(2)
No. 2 straw	(1)6.125-6.375(1)	(1)6.125-6.375(1)
No. 3	(1)6–6.125(1)	(1)6–6.125(1)
No. 6	(2)$1.90–2.50(1)	(2)$1.90–2.50(1)
CHICAGO—(FOB Chicago district refineries & p.l. terminals; all fuel oil prices in cnt. per gal.)		
No. 1 fuel	7.875(1)	7.875(1)
No. 2 fuel	7.5(1)	7.5(1)
No. 3 fuel	7.5(1)	7.5(1)
53-57 D.I. Diesel	7.5(1)	7.5(1)
58 & above		
D.I. Diesel.	8.25(1)	8.25(1)
No. 5 fuel	6.2(2)	6.2(2)
No. 6 fuel	5.5(3)	5.5(3)
N. TEX. (For shipt. to Tex. & N.M. dest'ns)		
41-43 w.w.	6.7(1)	6.7(1)
42-44 w.w.	(1)6.75–7.125(1)	(1)6.75–7.125(1)
58 D.I.	6.5(1)	6.5(1)
No. 6 fuel	$1.90(2)	$1.90(2)
W. TEX. (For shipt. to Tex. & N.M. dest'ns)		
42-44 w.w.	8(1)	8(1)
No. 1 Straw	6.75(1)	6.75(1)
No. 2 Straw.	6.375(2)	6.375(2)
No. 3	6.25(1)	6.25(1)
No. 6 fuel	(1)$2.00–2.20(1)	(1)$2.00–2.10(1)
E. TEX. (Truck trnspt.)		
41-43 w.w.	(1)6.5–6.875(2)	(1)6.5–6.875(2)
42-44 w.w.	(1)6.5–7(1)	(1)6.5–7(1)
45 cetane diesel		
58 & abv.		
D.I. Diesel.	(1)6–6.25(1)	(1)6–6.25(1)
U.G.I. gas oil	5.75(1)	5.75(1)
No. 2 fuel		
No. 6 fuel	(1)$1.65–2.15(1)	(1)$1.65–2.00(1)
CENT. W. TEX.		
41-43 w.w.	(1)7–7.25(1)	(1)7–7.25(1)
U.G.I. gas	5.5(1)	5.5(1)
52 & bel. D.I. Diesel	6(1)	6(1)
58 & abv. D.I. Diesel	6.75(1)	6.75(1)
No. 2 fuel	6(1)	6(1)
No. 6 fuel	(1)$1.65–1.85(1)	(1)$1.55–1.85(1)
KANSAS (For Kansas destinations only)		
42-44 w.w.	(3)7.25–7.4(1)	(3)7.25–7.4(1)
58 & abv.		
D.I. Diesel.	6.75(1)	6.75(1)
No. 1 fuel	(3)6.75–6.9(1)	(3)6.75–6.9(1)
No. 2 fuel	6.5(2)	6.5(2)
No. 6 fuel	(1)$1.75–2.10(2)	(1)$1.75–2.10(1)
ARK. (For shipment to Ark. and La.)		
42-44 w.w.	6.875(1)	6.875(1)
Tractor fuel	7.375(1)	7.375(1)
Diesel fuel 52 & below	6.375(1)	6.375(1)
Diesel fuel 58 & above	6.625(1)	6.625(1)
No. 2 fuel	6.125(1)	6.125(1)
No. 3 fuel	6(1)	6(1)
WESTERN PENNA.		
Bradford-Warren:		
45 w.w.	(1)7.75–7.95(1)	(1)7.75–7.95(1)
No. 1 fuel	7.75(1)	7.75(1)
No. 2 fuel	(1)7.625–7.7(1)	(1)7.625–7.7(1)
No. 3 fuel	7.7(1)	7.7(1)
36-40 gravity.	7.5(1)	7.5(1)
Other districts:		
45 w.w.	(2)8–8.5(2)	(2)8–8.5(2)
47 w.w.	(1)8.25–8.5(1)	(1)8.25–8.5(1)
No. 1 fuel	(3)7.75–8(4)	(3)7.75–8(4)
No. 2 fuel	(2)7.5–8(1)	(2)7.5–8(1)
No. 3 fuel	(2)7.5–7.75(1)	(2)7.5–7.75(1)
36-40 gravity.	(2)7.5–8(1)	(2)7.5–8(1)
CENTRAL MICHIGAN (FOB Central Mich. refinery group basis for shpt. within Mich; shpts. may originate at plants outside Central group.)		
44-46 kero.	8.375(1)	8.375(1)
46-49 w.w. kero.	(1)8.1–8.5(4)	(1)8.1–8.5(4)
P.W. distillate	(1)7.85–8.25(4)	(1)7.85–8.25(4)
CENTRAL MICHIGAN		
No. 2 light straw	(1)7.6–8(2)	(1)7.6–8(2)
No. 3 straw	(1)7.35–7.75(2)	(1)7.35–7.75(2)
U.G.I. gas oil	(3)6.625–7(2)	(3)6.625–7(2)
300-500 vis.	(3)6.125–7(1)	(3)6.125–7(1)
100-300 vis.	(2)6.5–6.75(2)	(2)6.5–6.75(2)
OHIO (S. O. Ohio quotations for statewide delivery)		
Kerosine	9.4	9.0
	June 2	**May 26**
CALIFORNIA		
San Joaquin Valley:		
Heavy fuel (PS 400)	$1.50(1)	$1.50(1)
Light fuel (PS 300)	1.70(1)	1.70(1)
Diesel fuel (PS 200)	7.45(1)	7.45(1)
Stove dist. (PS 100)	8.95(1)	8.95(1)
Los Angeles:		
40-43 w.w.	(1)7.75–10.05(3)	(1)7.5–10.05(3)
Heavy fuel (PS 400)	(1)$1.45–1.50(5)	(1)$1.45–1.50(5)
Light fuel (PS 300)	$1.70(5)	$1.70(5)
Diesel Fuel (PS 200)	(1)6–7.45(2)	(2)6–7.45(2)
Stove dist. (PS 100)	(1)6.75–8.95(2)	(1)6.5–8.95(2)
San Francisco:		
40-43 w.w.	11.55(1)	11.55(1)
Heavy fuel (PS 400)	$1.55(1)	$1.55(1)
Light fuel (PS 300)	$1.75(1)	$1.75(1)
Diesel fuel (PS 200)	7.95(1)	7.95(1)
Stove dist. (PS 100)	9.45(1)	9.45(1)

Lubricating Oils

Prices in Effect	**June 2**	**May 26**
WESTERN PENNA. Prices are for sales made, or offers reliably reported, to jobbers & compounders only.		
VISCOUS NEUTRALS—No. 3 col. Vis. at 70°F		
200 Vis. (180 at 100°) 420-425 fl.		
0 p.t.	42(1)	42(1)
10 p.t.	41(1)	41(1)
15 p.t.	40(1)	40(1)
25 p.t.	(1)38–41(1)	(1)38–41(1)
150 Vis. (143 at 100°) 400-500 fl.		
0 p.t.	40(1)	40(1)
10 p.t.	39(1)	39(1)
15 p.t.	38(1)	38(1)
25 p.t.	(1)37–39(1)	(1)37–39(1)
CYLINDER STOCKS: Brt. stk., 145-155 vis. at 210°, 540-550 fl., No. 2 col.		
10 p.t.	42(1)	42(1)
15 p.t.	41(1)	41(1)
25 p.t.	(1)39–42.5(1)	(1)39–42.5(1)
600 S.R. filter'bl.	(2)31–32(2)	(1)29–32(2)
650 S.R.	(2)32–33(2)	(1)30–33(2)
600 fl.	(1)33–34(3)	(1)31–34(3)
630 fl.	(1)35–36(2)	(1)35–36(2)
MID-CONTINENT Neutral Oils (Vis. at 100° F. 0 to 10 P.P.)		
Pale Oils		
Vis. Color		
60-85—No. 2.	(3)10.25–10.5(1)	(3)10.25–10.5(1)
86-110—No. 2	(2)10.75–11(1)	(2)10.75–11(1)
150—No. 3	(1)17–18(2)	(1)17–18(2)
180—No. 3	(1)18–19(1)	(1)18–19(1)
200—No. 3	(1)18–19(3)	(1)18–19(3)
250—No. 3	(1)19.5–20(3)	(1)19.5–20(3)
280—No. 3	(1)20.5–21(3)	(1)20.5–21(3)
300—No. 3	(1)21–22(2)	(1)21–22(2)
Red Oils		
200—No. 5	(1)18–19(1)	(1)18–19(1)
300—No. 5	21.5(1)	21.5(1)
Bright Stock—Vis. at 210°		
200 Vis. D	33(1)	33(1)
150-160 Vis. D: 0 to 10 p.p.	29(4)	29(4)
10-25 p.p.	28.5(1)	28.5(1)
25-40 p.p.	28.5(1)	28.5(1)
150-160 Vis. E	28(1)	28(1)
120 Vis. D: 0 to 10 p.p.	28(4)	28(4)
600 S.R. (Olive green)	19(2)	19(2)
SOUTH TEXAS (Neutral Oils) Pale Oils (Vis. at 100° F.)		
Vis. Color		
100 1½-2½	(2)8.5–10(2)	(2)8.5–10(2)
200 No. 2-3	(2)11–12.5(2)	(2)11–12.5(2)
300 No. 2-3	(2)11.75-13.25(2)	(2)11.75-13.25(2)
500 No. 2½-3½	(1)12.5–14.5(2)	(1)12.5–14.5(2)
750 No. 3-4	(1)13–15.25(2)	(1)13–15.25(2)
1200 No. 3-4	(1)13.75-15.75(2)	(1)13.75-15.75(2)
2000 No. 4	(1)14.5–16.75(2)	(1)14.5–16.75(2)
Red Oils		
100 No. 5-6	(2)8.5–10(1)	(2)8.5–10(1)
200 No. 5-6	(2)11–12.5(2)	(2)11–12.5(2)
300 No. 5-6	(2)11.75-13.25(2)	(2)11.75-13.25(2)
500 No. 5-6	(1)12.5–14.5(2)	(1)12.5–14.5(2)
750 No. 5-6	(1)13–15.25(2)	(1)13–15.25(2)
1200 No. 5-6	(1)13.75-15.75(2)	(1)13.75-15.75(2)
2000 No. 5-6	(1)14.5–16.75(2)	(1)14.5–16.75(2)

(Continued on next page)

Refinery Prices—Continued

Prices in Effect	June 2	May 26
CHICAGO (From Mid-Continent p.l. crude)		
Neutral oils vis. at 100°F. 0 to 10 p.p.		
Pale Oils:		
Vis. Color		
80-85—No. 2.	11.75(1)	11.75(1)
86-100—No. 2	12.25(1)	12.25(1)
150—No. 3...	19.5(1)	19.5(1)
180—No. 3...	20(1)	20(1)
200—No. 3...	20(1)	20(1)
250—No. 2...	21(1)	21(1)
Red Oils:		
180—No. 5...	20(1)	20(1)
200—No. 5...	20(1)	20(1)
250—No. 5...	21(1)	21(1)
280—No. 5...	22(1)	22(1)
300—No. 5..	22.5(1)	22.5(1)
Notes: Viscous oils, 15 to 30 p.p. are quoted 0.5c lower; 60-85 and 86-110 No. 2 non-viscous oils, 15 to 30 p.p. 0.25c lower.		
Unfiltered Steam Refined (Viscosity at 210°)		
140	18.5(1)	18.5(1)
160	19.5(1)	19.5(1)
200	20.5(1)	20.5(1)
Bright Stocks, 160 vis. at 210° No. 8 color		
0 to 10 p.p..	30(1)	30(1)
15 to 25 p.p..	29.5(1)	29.5(1)
30 to 40 p.p..	29(1)	29(1)
E filtered Cyl. Stock	20.5(1)	20.5(1)
Note: To obtain prices delivered in Chicago add 0.45c per gal.		

Natural Gasoline

(Group 3 & Breckenridge prices are to blenders on freight Basis shown below. Shipments may originate in any Mid-Continent manufacturing district.)

FOB GROUP 3		
Grade 26-70	5.375(Sales)	5.375(Sales)
FOB BRECKENRIDGE		
Grade 26-70	4.875(Quote)	4.875(Quote)
CALIFORNIA (FOB plants in Los Angeles basin)		
21-21.9 pound vapor pressure for blending..	....	....

LPG Prices

(Of refiners, FOB refineries, in cents per gal., tank cars or transport trucks)

District	Commercial Propane	Industrial Propane	Commercial Butane	Industrial Butane
N.Y. Harbor	6.5(2)	6.5(1)	6.25(2)	6.25(1)
Philadelphia	6.5(2)	....	(1)6.25–6.5(1)	....
Baltimore	6.5(1)	....	....	....
Hastings, W.Va.	5.25(1)	...	4.5(1)	...
New Orleans	3.5(1)a	....	....	....
Houston	(1)3-3.25(1)	....	3.75(1)	....
Toledo	6(1)	5.75(1)	....	....

(a) Tank cars only; 4.5(1) for transport trucks.

Naphthas and Solvents

(FOB Group 3)

Stoddard solvent	(1)8.125-8.625(4)	(1)8.125-8.625(4)
Cleanrs Npth	(1)8.875-9.125(3)	(1)8.875-9.125(3)
V. M. & P. Npth.	(1)8.875-9.125(5)	(1)8.875-9.125(5)
Mineral spirits	(1)7.875-8.125(5)	(1)7.875-8.125(5)
Rubber solv.	(1)8.625-9.125(3)	(1)8.625-9.125(3)
Lacquer dil.	(3)9.375-10.125(1)	(3)9.375-10.125(1)
Benzol dil.	(1)9.875-10.625(1)	(1)9.875-10.625(1)
WESTERN PENNA.		
Bradford-Warren:		
Stoddard solvent	....	....
Other Districts:		
Untreated Npth.	9(1)	9(1)
Stoddard solvent	(2)9–9.5(1)	(2)9–9.25(1)

OHIO (S. O. quotations for statewide delivery): V.M.&P. naphtha D.C. naphtha, Varnolene & Sohio solvent. 12.5 12.5
Rubber solvent 12 12

E. TEXAS (Truck Tnspt.)		
Stoddard Solv.	(1)8.75–9.25(1)	(1)8.75–9.25(1)

Wax

WESTERN PENNA. (Bbls. C.L.)		
White Crude Scale:		
122-124 A.m.p.	(1)6.5–9(1)	(1)6.5–9(1)
124-126 A.m.p.	(1)6.5–9(1)	(1)6.5–9(1)
MID-CONTINENT (C.L. FOB Refinery)		
Semi-refined:		
132-134 AMP, bbls.	9.5(1)	9.5(1)

CHICAGO (FOB Chicago district refinery of one refiner, in bags, carloads. Carloads, slabs loose, 0.75c less. Melting points are EMP (ASTM) methods; add 3° to convert into AMP.)

Fully refined:		
122-124(bags only)	6.85	6.85
125-127	7.15	7.15
127-129	7.4	7.4
130-132	7.7	7.7
132-134	7.95	7.95
135-137	8.6	8.6

Petrolatums

WESTERN PENNA. (Bbls., carloads; tank cars, 0.5c per lb. less.)

Snow White.	(1)7.75–8.75(1)	(1)7.75–8.75(1)
Lily White	(1)6.75–8(2)	(1)6.75–8(2)
Cream White.	(1)6.5–7.5(1)	(1)6.5–7.5(1)
Light Amber.	(1)4.75–5.75(1)	(1)4.75–5.75(1)
Amber	(1)4.5–5.5(1)	(1)4.5–5.5(1)
Red	(1)4.5–5.375(1)	(1)4.5–5.375(1)

Tank Wagon Prices

Commercial or consumer tank car, tank wagon, dealer and service station prices for gasoline do not include taxes; they do, however, include inspection fees as shown below. Gasoline taxes, shown in separate column, include 1.5c federal, and state taxes; also city and county taxes as indicated in footnotes. Kerosine tank wagon prices also do not include taxes; kerosine taxes where levied are indicated in footnotes. Dealer discounts are shown in footnotes. These prices in effect June 2, 1947, as posted by principal marketing companies at their headquarters offices, but subject to later correction.

Inspection fees per gal., included in both gasoline and kerosine prices, unless otherwise specified, are as follows:

Ala. 1/40c on gasoline; Ark. 1/20c; Fl. 1/8c; Ill. 3/100c; Ind. 2/25c; Kans. 1/50c; La. 1/32c; Minn. 7/200c; Neb. 2/100c; Nev. 1/20c; N. C. 1/4c; N. Da. 1/20c; Okla. 2/25c; S. Car. 1/8c; S. Da. 1/40c; Tenn. 2/5c; and Wisc. 3/100c.

Kerosine inspection fees only: Ala. 1/2c; Fla. 1/8c; Iowa 3/50c; Mich. 1/5c per gal.

ATLANTIC REFINING

Atlantic White Flash (Regular Grade)

	Commercial T.W.	Dealer T.W.	Gasoline Taxes	Kerosine T.W.
Philadelphia, Pa.	11.3	11.3	5.5	12.7
Pittsburgh	12.2	12.2	5.5	13.6
Allentown	11.9	11.9	5.5	13.3
Erie	12.2	12.2	5.5	13.6
Scranton	12.2	12.2	5.5	13.6
Altoona	12.2	12.2	5.5	13.6
Emporium	12.2	12.2	5.5	13.6
Indiana	12.2	12.2	5.5	13.6
Uniontown	12.2	12.2	5.5	13.6
Harrisburg	11.9	11.9	5.5	13.3
Williamsport	12.2	12.2	5.5	13.6
Dover	11.9	11.9	5.5	13.2
Wilmington	11.3	11.3	5.5	12.6
Boston	....	11.4	4.5	....
Springfield	....	12.1	4.5	....
Worcester	....	11.9	4.5	....
Fall River	....	11.4	4.5	....
Hartford	....	12.1	4.5	....
New Haven	....	11.8	4.5	....
Providence	....	11.4	5.5	....
Atlantic City	....	11.1	4.5	10.6
Camden	....	11.1	4.5	10.6
Trenton	....	11.1	4.5	10.6
Baltimore	....	11.0	5.5	10.6
Hagerstown	....	12.0	5.5	11.1
Richmond	....	11.0	7.5	11.1
Wilmington, N. C.	....	11.2	7.5	11.7
Brunswick, Ga.	....	12.4	7.5	11.6
Jacksonville	....	11.9	8.5	11.2

	Mineral Spirits T.W.	V.M.&P. T.W.
Philadelphia, Pa.	12.5	14.0
Lancaster, Pa.	13.5	15.0
Pittsburgh, Pa.	14.0	15.0

	FUEL OILS—T.W. 1	2	5	6
Phila., Pa.	10.7	9.2	6.85	6.14
Allentown	11.3	9.8	....	....
Wilmington, Del.	10.6	9.3	....	....
Springfield, Mass.	....	10.0	....	....
Worcester	....	9.7	....	....
Hartford, Conn.	....	9.6	....	....

Taxes:
Brunswick, Ga., kerosine price does not include 1c state tax.
Discounts:
Kerosine—Thru Penna. & Del., 2c off t.w. price on t.w. deliveries of 25 gals. or more at one time.
Notes:
Mineral Spirits prices also apply to Stoddard Solvent; V. M. & P. prices also apply to Light Cleaners Naphtha.

S. O. CAL.

CHEVRON

	(Regular) T.T.	Retail	Av. 80 T.T.	Gasoline Taxes	Kerosine T.T.
San Fran., Cal.	12.0	16.0	15.5	4.5	14.55
Los Angeles	11.5	15.5	15.0	4.5	13.05
Fresno	13.0	17.0	16.5	4.5	15.55
Phoenix, Ariz.	14.5	18.5	18.0	6.5	16.05
Reno, Nev.	14.0	18.0	17.5	5.5	16.55
Portland, Ore.	12.5	16.5	16.0	6.5	16.55
Seattle, Wash.	12.5	16.5	16.0	6.5	16.55
Spokane	15.0	19.0	18.5	6.5	20.05
Tacoma	12.5	16.5	16.0	6.5	16.55
Boise, Idaho	15.5	19.5	19.0	7.5	19.30
Salt Lake, U.	15.6	....	18.5	5.5	15.70
Honolulu, T. H.	13.0	17.5	16.5	5.5	15.55

Taxes:
Gasoline tax at Boise, Ida. applies to motor fuel only; avgas taxes are 1.5c federal, 2.5c state.
Notes:
Resale & Commercial Gasoline: T.C. prices for Chevron (regular) and Chevron Aviation 80 are 0.25c per gal. below posted net tank truck prices; Pearl Oil (kerosine) T.C. prices, 3c per gal. below posted net tank truck prices.
Prices for Chevron Supreme (Ethyl) are 2c above Chevron (regular), except at Salt Lake & Boise where spread is 1.5c. Prices for Chevron Aviation 91 are 2c above Chevron Aviation 80; for Chevron Aviation 100, 5c above Chevron Aviation 80.

S. O. KY.

	Crown Net Dealer	Gasoline Taxes	Kerosine T.W.	Diesel Fuel Net T.W.
Covington, Ky.	12.5	6.5	11.7	9.8
Lexington	13.0	6.5	12.2	11.6
Louisville	12.4	6.5	11.6	9.6
Paducah	12.4	6.5	11.6	11.0
Jackson, Miss.	12.0	7.5	11.2	10.6
Vicksburg	11.7	7.5	10.8	10.2
Birmingham, Ala.	12.2	8.5	11.8	10.7
Mobile	11.7	9.5	11.3	10.2
Montgomery	12.4	9.5	12.1	11.0
Atlanta, Ga.	12.5	7.5	11.7	11.1
Augusta	12.8	7.5	11.9	11.3
Macon	12.5	7.5	11.7	11.1
Savannah	12.0	7.5	11.2	10.6
Jacksonville, Fla.	12.0	8.5	11.2	10.6
Miami	12.0	8.5	11.2	10.6
Pensacola	11.8	9.5	10.9	10.3
Tampa	12.0	8.5	11.2	10.6

Taxes:
Gasoline tax column includes these city & county taxes: Mobile, 2c city; Birmingham, 1c city; Montgomery, 1c city & 1c county; Pensacola, 1c city. Other taxes not included in prices: Georgia, kerosine, 1c; Montgomery, kerosine & diesel, 1c; Mississippi, kerosine & diesel, 0.5c; Birmingham, diesel, 1c.
Notes:
Consumer t.w. prices are same as net dealer prices.

S. O. IND.

Blue Crown (3rd Grade) Red Crown (Reg. Grade)

	Red Cr'n. Cons. T.W.	Red Cr'n. Dir. T.W.	Blue Cr'n. Dir. T.W.	Gasoline Taxes	Kerosine T.W.
Chicago, Ill.	14.8	12.8	12.3	4.5	13.0
Decatur	14.5	13.0	12.5	4.5	12.7
Joliet	14.8	13.3	12.8	4.5	13.0
Peoria	14.6	13.1	12.6	4.5	12.8
Evansville, Ind.	14.3	12.8	12.3	5.5	12.3
Indianapolis	14.5	13.0	....	5.5	12.5
South Bend	14.9	13.4	12.9	5.5	12.9
Detroit, Mich.	14.0	12.5	....	4.5	12.0
Grand Rapids	14.0	12.5	....	4.5	12.0
Saginaw	14.0	12.5	....	4.5	12.0
Green Bay, Wisc.	15.1	13.6	13.1	5.5	13.3
Milwaukee	15.0	13.5	13.0	5.5	13.2
La Crosse	14.8	13.3	12.8	5.5	13.0
Duluth, Minn.	15.1	13.6	....	5.5	13.3
Mpls.-St. Paul.	14.8	12.8	12.8	5.5	13.0
Mankato	14.8	13.3	12.8	5.5	13.0
Des Moines, Ia.	14.3	12.8	12.3	5.5	12.5
Mason City	14.6	13.1	12.6	5.5	12.8
St. Louis, Mo.	14.3	12.8	12.3	4.5	12.5
Kansas City	°14.2	°12.7	°12.2	°5.0	11.9
St. Joseph	13.7	12.2	....	4.5	11.9
Fargo, N. D.	15.8	14.3	13.8	5.5	14.0
Huron, S. D.	15.2	13.7	13.2	5.5	13.4
Wichita, Kans.	11.4	12.6	11.1	5.5	10.3
Omaha, Neb.	14.3	12.8	12.3	6.5	12.5

Stanavo Aviation Number 73

	Cons. T.W.	Taxes
Detroit, Mich	18.4	4.5
Fargo, N. D.	17.8	5.5
Huron, S. D.	17.2	5.5
Indianapolis, Ind.	16.9	5.5
Kansas City, Mo.	15.7	4.5

(Prices are base prices before discounts)

	Oleum Spirits	V.M.&P. Naphtha	Stanisol	Taxes
Chicago	15.9	16.2	15.2	4.5
Detroit	18.2	17.4	18.7	4.5
K. C., Mo.	15.5	16.5	16.0	1.5
St. Louis	16.1	17.1	15.6	1.5
Milwaukee	16.8	17.8	17.3	5.5
Minneap'ls	16.6	17.6	15.9	5.5

Fuel Oils T. W. Chicago

	Standard Heater Oil	Stanolex Furnace Oil
1-99 gals.	11.5	11.0
100-149 gals.	10.5	10.0
150 gals. & over	10.0	....
150-399 gals.	....	10.0
400 gals. & over	....	9.5

	Stanolex Fuel A	Stanolex Fuel C
1-749 gals.	8.0	7.25
750 gals. & over	7.25	6.5

Stanolex Furnace Oil

Other Products	1-99 gals.	100 gals. & over
Indianapolis	10.8	9.8
Detroit	10.6	9.6
Milwaukee	11.1	10.1
Minneapolis	11.0	10.0
St. Louis	10.5	9.5
Kansas City	10.0	9.0

Taxes:
Gasoline tax column includes these city taxes: Kansas City, 1.5c; St. Joseph, & St. Louis, 1c. Naphtha tax column includes 1.5c federal & state taxes. Iowa kerosine prices do not include 4c state tax. State sales, occupation, consumer & use taxes to be added where applicable.
° Effective June 1.

SOCONY VACUUM

Tank Wagon Prices—Continued

	Gasoline Taxes	Mobilgas Aircraft Grade 80 T.C	Grade 80 T.W.	Grade 91 T.C.	Grade 91 T.W.	Grade 100 T.C.	Grade 100 T.W.	Mobilgas (Regular Grade) T.C.	Com. Cons. T.W.	Undiv. Dir. T.W.	Mobil Kerosine T.C.	Yard	T.W.	Mobilfuel Diesel T.C.	T.W.	MOBILHEAT (No. 2 Fuel) T.C.	Yard	T.W.
New York City:																		
Manh.	5 5				15 7				11 2	11 7			11 1		9 6			9 4
Bronx	5 5				15 7				11 2	11 7			11 1		9 6			9 4
Kings	5 5				15 7				11 2	11 7	7 9	8 1	11 1		9 6	6 9	7 2	9 3
Queens	5 5				15 7				11 2	11 7			11 1		9 6			9 3
Richmond	5 5				15 3		16 8		10 8	11 3	7 8	8 1	10 9			6 8	7 2	9 3
Albany, N. Y.	5 5		14 6		15 6		17 1	10 5	11 1	11 6	8 1	8 3	10 6	7 4	9 7	7 2	7 4	9 3
Binghamton	5 5							11 6	12 3	12 8	9 8	10 0	12 7		11 7	9 0	9 2	11 1
Buffalo	5 5	14 2	15 4	15 2	16 4	16 7	17 9	11 2	11 9	12 4	9 1	9 5	12 2	8 5	11 2	8 3	8 7	11 0
Jamestown	5 5		15 6					11 6	12 1	12 6	9 0	9 2	11 9		11 3	8 6	8 9	10 9
Mt. Vernon	5 5								11 3	11 8		8 4	11 2		9 9		7 4	9 6
Plattsburg	5 5							11 3	12	12 5	9 3	9 3	11 8			8 1	8 1	10 2
Rochester	5 5		15 8		16 8			11 5	12 3	12 8	9 2	9 6	12 3		11 1	8 4	8 6	10 0
Syracuse	5 5		15 5		16 5			11 3	12	12 5	9 1	9 5	12 2	8 4	10 9	8 2	8 4	10 4
Bridgeport, Conn.	4 5								11 3	11 8	7 8	8 0			9 9	6 9	7 1	9 2
Danbury	4 5								11 8	12 3		8 9			10 5		7 7	8 2
Hartford	4 5							10 8	11 6	12 1	8 3	8 3		7 8	10 1	7 4	7 4	9 0
New Haven	4 5		14 8					10 7	11 3	11 8	7 8	7 8		7 4	9 7	6 9	6 9	9 1
Bangor, Me.	5 5		15 3					10 8	11 8	12 3	9 0		12 2	8 3	10 6	8 1		10 0
Portland	5 5	13 1	14 5	14 1	15 5			10 1	11	11 5	8 0		11 2	7 3	9 6	7 1		9 3
Boston, Mass.	4 5	13 4	14 4	14 4	15 4	15 9	16 9	10 4	10 9	11 4	7 9		11 3	7 2	9 5	7 0		9 4
Concord, N. H.	5 5								12 5	13		9 7	12 7		10 8		8 5	10 3
Lancaster	5 5								13 1	13 6		10 3	13 2		11 7		9 4	11 3
Manchester	5 5								12	12 5		9 3	12 3		10 5		8 3	10 2
Providence, R. I.	4 5		14 4		15 4			10 3	10 9	11 4	7 9	8 5	11 1	7 2	9 5	7 0	7 4	9 3
Burlington, Vt.	6 0		15 4					11 3	11 9	12 4	8 9	9 1		8 5	10 8	8 3	8 5	10 4
Rutland	6 0								12 3	12 8		9 6			11 0		8 7	10 7

Tank Wagon Prices:	Buffalo	N. Y. City	Rochester	Syracuse	Boston	Hartford	Providence
Mineral Spirits	14	12 5	15	16	13 5	15	14
V.M. & P. Naphtha	15 5	13 5	16	20	14 5	16	15 5

Taxes: N.Y.C. prices do not include 2% city sales tax applicable to price of gasoline (ex tax).
Discounts: Diesel—on t.w. deliveries, 0.5c for at least 400 gals.
Notes: Syracuse V.M.&P. price is in steel barrels. Jamestown t.c. prices are delivered prices; all other t.c. prices are FOB bulk terminals.

S. O. N. J.

	Esso (Regular Grade) Consumer Tank Wagon	Dealer T.W.	Gasoline Taxes	Kerosine T.W.
Atlantic City, N. J.	11.1	11.6	4.5	10.6
Newark	11.1	11.6	4.5	10.6
Baltimore, Md.	11.0	11.5	5.5	10.6
Cumberland	12.5	13.0	5.5	12.1
Washington, D. C.	11.3	11.8	4.5	11.1
Danville, Va.	11.6	12.1	7.5	11.7
Petersburg	11.0	11.5	7.5	11.3
Norfolk	10.7	11.2	7.5	11.0
Richmond	11.0	11.5	7.5	11.3
Roanoke	12.5	13.0	7.5	11.9
Charleston, W. Va.	12.2	12.7	6.5	12.8
Fairmont	12.3	12.8	6.5	13.4
Parkersburg	12.1	12.6	6.5	12.5
Wheeling	12.1	12.6	6.5	13.1
Charlotte, N. C.	11.9	12.4	7.5	12.1
Hickory	12.2	12.7	7.5	12.6
Mt. Airy	12.4	12.9	7.5	11.6
Raleigh	12.2	12.7	7.5	11.8
Salisbury	11.8	12.3	7.5	12.8
Charleston, S. C.	11.3	11.8	7.5	....
Columbia	12.4	12.9	7.5	....
Spartanburg	11.7	12.2	7.5	....
New Orleans, La.	10.4	10.9	8.5	9.6
Baton Rouge	10.3	10.8	8.5	10.1
Alexandria	10.8	11.3	8.5	10.1
Lake Charles	10.3	10.8	8.5	11.6
Shreveport	10.3	10.8	8.5	9.2
New Iberia	11.1	11.6	8.5	9.6
Knoxville, Tenn.	12.0	12.5	8.5	12.2
Memphis	11.3	11.8	8.5	10.8
Chattanooga	11.9	12.4	8.5	11.3
Nashville	12.4	12.9	8.5	11.3
Bristol	11.5	12.0	8.5	12.3
Little Rock, Ark.	11.9	12.4	8.0	10.3

	Mineral Spirits T.W.	V.M.&P. T.W.
Newark, N. J.	12.5	14.0
Baltimore, Md.	15.0	....
Washington, D. C.	15.0	....
Fuel Oils—T.W.	**No. 1**	**No. 2**
Atlantic City, N. J.	10.6	9.2
Newark	10.6	9.2
Baltimore, Md.	10.6	9.7
Washington, D. C.	11.1	10.1
Norfolk, Va.	11.0	9.3
Petersburg	11.3	9.5
Richmond	11.3	9.5
Charlotte, N. C.	12.1	10.3
Hickory	....	10.5
Raleigh	11.8	10.6
Charleston, S. C.	....	9.5
Columbia	....	10.5
Spartanburg	....	11.3

Taxes: Louisiana kerosine prices do not include 1c state tax.
Discounts:

Esso gasoline—to undivided dealers, 0.5c off dealer t.w.

Kerosine—In South Carolina 1c per gal. off posted t.w. price for 25 gals. or more.

Naphtha—Newark t.w. prices are for deliveries of 200 gals. or more; less than 200 gals., 0.5c over posted t.w. prices; steel barrel deliveries, 2c over posted t.w. prices. Baltimore & Washington prices are for t.w. deliveries of 25-99 gals., no discounts.
Notes:

Effective Mar. 21, minimum retail resale price of 15.4c for Esso Gasoline posted throughout New Jersey.

S. O. OHIO

	Sohio X-70 Gasoline (Regular Grade) Consumer T.W.	Reseller T.W.	Gasoline S.S.	Gasoline Taxes	Kerosine T.W.
Ohio, Statewide	15.0	12.0	15.5	5.5	11.0
Akron	15.0	12.0	15.5	5.5	11.0
Canton	15.0	12.0	15.5	5.5	11.0
Cincinnati	15.0	12.0	15.5	5.5	11.0
Cleveland	15.0	12.0	15.5	5.5	11.0
Columbus	15.0	12.0	15.5	5.5	11.0
Dayton	15.0	12.0	15.5	5.5	11.0
Lima	15.0	12.0	15.5	5.5	11.0
Mansfield	15.0	12.0	15.5	5.5	11.0
Marion	15.0	12.0	15.5	5.5	11.0
Portsmouth	15.0	12.0	15.5	5.5	11.0
Toledo	15.0	12.0	15.5	5.5	11.0
Youngstown	15.0	12.0	15.5	5.5	11.0
Zanesville	15.0	12.0	15.5	5.5	11.0

Aviation Gasoline—Statewide

	Consumer T.W.	Gasoline Taxes
Sohio Aviation Gasoline 62 Octane (Clear)	16.5	5.5
Esso (Clear) Avia. Grade 80	18.5	5.5
Esso Aviation Grade 91/98	19.5	5.5
Esso Aviation Grade 100/130	22.5	5.5

Naphtha—T.W.

	Statewide
S.R. Solvent	16.5
D.C. Naphtha	17.0
V.M.&P. Naphtha	17.0
Varnolene	17.0
Sohio Solvent	17.0

Fuel Oils—T.W.	**No. 1**	**No. 2**	**No. 3**
Ohio, Statewide	°11.0	°11.0	°10.0

Discounts:

Esso aviation—on contract to hangar operators and resellers, 2c off consumer t.w.

Fuel oils—Statewide prices are for t.w. & drum deliveries of 50 gals. or more; prices for deliveries of less than 50 gals. are 0.5c higher.

Naphthas—to contract consumers off t.w. prices—Statewide: 300 to 999 gals., 0.5c; 1000 to 2499 gals., 0.75c; 2500 to 4999 gals., 1c; 5000 or more gals., 1.5c. Lucas County: Less than 50 gals., tank wagon price, 50 to 249 gals., 0.5c; 250 to 499 gals., 1c; 500 gals. or over 1.5c.
Notes:

Renown (third-grade) gasoline prices are same as X-70 unless otherwise noted. S.S. prices are at company-operated stations. Statewide prices are subject to exceptions other than those shown.

° Effective June 1.

TEXAS CO.

	Gasoline— Dealer T.W. Fire-Chief (Regular)	Indian (3rd Grade)	Gasoline Taxes
Dallas, Tex.	10.5	9.5	5.5
Ft. Worth	10.5	9.5	5.5
Wichita Falls	10.5	9.5	5.5
Amarillo	10.5	9.5	5.5
Tyler	10.5	9.5	5.5
El Paso	12.5	12.0	5.5
San Angelo	10.5	9.5	5.5
Waco	10.5	9.5	5.5
Austin	10.5	9.5	5.5
Houston	10.5	9.5	5.5
San Antonio	10.5	9.5	5.5
Port Arthur	10.5	9.5	5.5

CONT'L OIL

(N. B. Prices are Continental's "normal" prices. Current selling prices may be lower than "normal" because of local competition).

	Conoco N-tane (regular) Tank Wagon	Demand (3rd Grade) Tank Wagon	Gasoline Taxes	Kerosine T.W.
Denver, Col.	12.6	11.6	7.5	12.8
Grand Junc.	14.5	13.5	7.5	14.0
Pueblo	13.3	12.3	7.5	12.5
Casper, Wyo.	13.5	12.5	5.5	13.5
Cheyenne	13.3	12.3	5.5	13.3
Billings, Mont.	14.5	13.5	6.5	14.1
Butte	15.6	14.6	6.5	15.8
Great Falls	14.5	13.5	6.5	15.8
Helena	15.2	14.2	6.5	15.8
Salt Lake, U.	15.6	14.6	5.5	15.7
Twin Falls, Ida.	17.8	16.8	7.5	17.9
Albuquer., N.M.	12.9	11.9	7	11.9
Roswell	12.4	11.4	7	11.4
Santa Fe	13.2	12.2	7.5	12.2
Muskogee, Okla.	11.5	10.5	7	10.0
Oklahoma City	11.5	10.5	7	10.0
Tulsa	11.5	10.5	7	10.0

Taxes:

Gasoline tax column includes these city taxes: Albuquerque & Roswell, 0.5c; Santa Fe, 1c.
Notes:

T.W. prices are to consumers & dealers.

HUMBLE OIL

	Humble (Regular) Tank Wagon	Re-tail	Thriftane (3rd Grade) Tank Wagon	Re-tail	Gasoline Taxes
Dallas, Tex.	10.5	15.0	9.5	12.5	5.5
Ft. Worth	10.5	15.0	9.5	12.5	5.5
Houston	10.5	15.0	9.5	12.5	5.5
San Antonio	10.5	15.0	9.5	12.5	5.5

	Kerosine Tank Wagon	Retail
Dallas, Tex.	10.0	14.0
Ft. Worth	10.0	14.0
Houston	10.0	14.0
San Antonio	10.0	14.0

Notes:

T.W. prices are to all classes of dealers & consumers.

IMPERIAL OIL

	Esso Gasoline (Regular Grade) Gasoline T.W.	Gasoline Taxes	Kerosine T.W.
Hamilton, Ont.	18.0	11.0	19.0
Toronto	18.0	11.0	19.0
Brandon, Man.	23.0	9.0	25.0
Winnipeg	21.5	9.0	23.5
Regina, Sask.	23.0	10.0	25.0
Saskatoon	25.8	10.0	27.8
Edmonton, Alta.	22.9	9.0	24.9
Calgary	20.0	9.0	22.0
Vancouver, B. C.	15.0	10.0	24.0
Montreal, Que.	17.5	11.0	18.5
St. John, N. B.	16.0	13.0	19.0
Halifax, N. S.	16.0	13.0	19.0

Taxes:

Gasoline taxes are provincial taxes.
Notes:

Prices are per Imperial gal. which is 1.2 U.S. gals. T.W. prices are to divided & undivided dealers.

Atlantic & Eastern Gulf Coast

(Prices are of refiners, FOB their refineries and tanker terminals, and of tanker terminal operators FOB their terminals)—Prices in Effect June 2

District	MOTOR GASOLINE 74-76 Oct.	78-78.5 Oct. Ethyl (a)	KEROSINE & FUEL OILS Kerosine &/or No. 1 fuel	No. 2 fuel	No. 5 fuel (0-10 p.t.)	No. 5 fuel (15-60 p.t.)	No. 6 fuel
N.Y. Harb.	(2)9.3–10.5(1)	(2)10.3–12(1)	7.8(17)	(14)6.8–7.1(2)	(7)2.57–2.85(1)	$2.39(1)	(7)$2.22–2.32(4)
N.Y. Harb., bar.	(1)9.2–10(1)	(1)10.2–10.4(1)	7.7(15)	(14)6.7–7(2)	(7)2.57–2.85(1)	2.39(1)	....
Albany	10.5(8)	(1)11.5–12(3)	8.1(8)	7.2(7)	2.77(1)	....	2.42(1)
Philadelphia	(1)9.2–10.3(3)	(1)10.3–11.8(1)	7.7(14)	6.9(13)	....	(3)2.43–2.53(1)	(9)2.22–2.32(1)
Phil., barges	(1)9.1–9.4(1)	(1)10.2–10.4(1)	7.6(5)	6.8(5)	....	....	....
Baltimore	(2)9.3–10(4)	(1)10.3–11.5(2)	8(11)	7.2(11)	....	2.39(3)	(5)2.22–2.32(1)
Balt., barges	(1)9.2–9.4(1)	(1)10.2–10.4(1)	(1)7.875–7.9(1)	(1)7.075–7.1(2)	....	....	....
Norfolk	(3)8.9–9.2(2)	(1)9.9–11.2(1)	7.9(8)	7.2(8)	....	2.35(1)	(3)2.18–2.28(1)
Wilm., N.C.	(3)8.85–9.1(1)	(3)9.85–10.95(2)	7.85(10)	7.2(10)	....	....	....
Charleston	(2)8.8–9.2(1)	(2)9.8–11.15(1)	8(7)	7.2(7)	....	2.30(1)	2.13(3)
Savannah	9.4(8)	10.4(5)	8.1(9)	7.3(5)	....	....	(1)2.13–2.32(1)
Jacksonville	9.4(9)	10.4(6)	8.1(10)	7.3(6)	....	....	(5)2.08–2.18(1)
Miami	9.4(7)	10.4(5)	8.1(8)	7.3(4)	....	....	....
Tampa	9.4(8)	10.4(6)	8.1(10)	7.3(7)	....	....	(4)2.03–2.13(1)
Pensacola	....	....	8(3)	7.1(3)	....	....	....
Mobile	(1)8.75–9(2)	(1)9.75–10(2)	7.7(3)	7.1(2)	....	....	....
New Orleans	(2)8.025–8.3(1)	(2)8.9–9.3(1)	(1)6.8–6.825(4)	6.15(3)	....	1.90(1)	(5)1.73–1.83(1)
Portland	10.1(5)	(1)11.35–11.6(2)	8(8)	7.1(7)	....	2.745(1)	(2)2.265–2.365(1)
Boston	(1)9.5–10.4(5)	(1)10.5–11.9(2)	7.9(9)	7(9)	(1)2.605–2.705(1)	2.605(1)	(3)2.265–2.365(2)
Providence	10.3(6)	(1)11.55–11.8(2)	7.9(9)	7(8)	....	2.575(2)	(4)2.235–2.335(1)
New Haven	10.7(3)	12.2(3)	7.8(8)	(5)6.9–7(1)	....	....	2.235(4)

(a) Postings of one supplier quoting the lows at Philadelphia & Baltimore are for Min. 80 Oct. (A.S.T.M.) Ethyl.

	Bunker C Fuel Ships' bunkers (Ex Lighterage)	Diesel Oil Ships' bunkers (Ex Lighterage)	Diesel Oil Shore Plants	Gas House Gas Oil 28-34 Gravity
N. Y. Harbor	(6)$2.22–2.32(2)	$2.98(8)	(1)7.1–7.2(4)	7.1(2)
Albany	2.42(1)	....	7.4(3)	7.4(1)
Philadelphia	(6)2.22–2.27(1)	(1)2.90–2.98(5)	(5)6.9–7.1(2)	7(1)
Baltimore	(4)2.22–2.32(1)	3.03(2)	7.4(3)	7.2(1)
Norfolk	(2)2.18–2.28(1)	2.99(2)	7.2(4)	7.2(1)
Charleston	2.13(2)	2.99(2)	7.2(2)	....
Savannah	(1)2.13–2.23(1)	3.06(1)	7.3(4)	....
Jacksonville	(4)2.08–2.18(1)	3.06(2)	7.3(5)	....
Tampa	(3)2.03–2.13(1)	3.06(2)	7.3(5)	....
New Orleans	(5)1.73–1.83(1)	2.33(2)	6.4(2)	....
Portland	(2)2.265–2.365(1)	....	7.3(1)	7.3(1)
Boston	(3)2.265–2.365(1)	3.02(1)	7.2(2)	7.2(1)
Providence	(3)2.235–2.335(1)	3.02(2)	7.2(2)	7.2(1)
New Haven	2.235(2)	....	(3)7.4–7.5(1)	....

Gulf Coast—New Orleans & West

(Cargo prices are FOB ship at Gulf, min. of 20,000 bbls., & are by refiners only to other refiners, export agents, or tanker terminal operators.)—**Prices in effect June 2.**

	New Orleans & Lower Mississippi to Baton Rouge Tank Cars	Barges	South & West of New Orleans Tank Cars	Barges	CARGOES Domestic & Export from all Gulf Ports
AVIATION GASOLINE					
Grade 100 (Spec. An-F-48)	....	....	13.5(1)	....	(1)12–12.5(1)
Grade 91 (Spec. An-F-48)	....	....	12(1)	....	11(2)
MOTOR GASOLINE					
°78-78.5 Oct. Ethyl	8.9(2)	8.9(2)	....	(1)8.5–9.25(1)	(1)8.5–9.25(1)
†78-78.5 Oct. Ethyl	9.3(1)	9.3(1)	(1)9.4–10.5(1)	(2)9–9.5(1)	9.5(3)
††78-78.5 Oct. Ethyl	....	....	...	9.5(3)	9.5(4)
°74-76 Oct.	8.025(2)	8.025(2)	....	....	(1)8–8.125(1)
†74-76 Oct.	8.3(1)	8.3(1)	(2)8.4–9(1)	(1)8.25–9(2)	(2)8.25–9(1)
70-72 Oct.	....	....	....	....	(1)7.875–8.125(2)

° ASTM & research Octane ratings are approximately same.
† Research Octane rating is minimum of 5 points above ASTM rating.
†† Research Octane rating is minimum of 10 points above ASTM rating.

Unleaded					
70 Oct.	....	....	....	....	(3)8–8.25(1)
68 Oct.	....	....	....	....	....
65 Oct.	(1)7.475–7.775(1)	(1)7.475–7.775(1)	....	....	7.75(1)
60 Oct.	....	....	....	....	....
KEROSINE & LIGHT FUELS					
41-43 w.w. kero.	6.825(4)	6.825(3)	(2)6.5–7.125(1)	(1)6.75–7.125(1)	(2)6.75–7.125(1)
42-44 w.w. kero.	....	....	....	....	....
No. 2 fuel oil	6.15(3)	6.15(2)	(2)5.75–6(2)	(2)5.75–6(2)	(6)5.75–6(4)
DIESEL & GAS OILS (In diesel index No.)					
43-47 di.	6.275(1)	....	(2)5.875–6(1)	(1)5.875–6(1)	(2)5.75–6(2)
48-52 di.	6.275(1)	....	(2)5.875–6(1)	(1)5.875–6(1)	(2)5.75–6(2)
53-57 di.	6.275(1)	....	(1)5.925–6(1)	(1)5.925–6(2)	(1)5.875–6(4)
58 and above	....	....	6.05(1)	....	6(1)
No. 5 fuel oil	$1.90(1)†	....	....	....	(1)$2.25–2.50(1)††

† 15-60 p.t. †† 0-10 p.t.

HEAVY FUELS & BUNKER OIL Heavy Diesels (At all Gulf Ports)	Cargoes	Ship's Bunkers (Ex. Lighterage)
Below 28 API grav.	$2.25(2)	(1)2.25–2.41(1)
28 & above grav.	....	(1)2.33–2.58(8)
Bunker C Oil	(2)$1.68–2.00(1)	(9)1.73–2.15(1)

TANKER RATES

Approximate rates, c per bbl.; Gulf-N. Atlantic, not east of N.Y. Rates are for vessels 14,000 DWT or over; for vessels 9000/13,999 DWT, rates are 15% higher.

Heavy crude & fuel, 10-19.9 grav.	43.8
Light crude, 30 grav. or lighter	39
Gasoline	32.9
Kerosine	36
No. 2 fuel	38

NPN Gasoline Index

	Dealer T.W.	Tank Car
	Cents Per Gal.	
May 26	12.43	8.71
Month ago	12.47	8.78
Year ago	9.80	6.26

Dealer index is an average of "undivided" dealer prices, ex-tax, in 50 cities.

Tank car index is weighted average of following wholesale markets for regular-grade gasoline, FOB refineries or terminals: Okla., Mid-Western, W. Penna., Calif., N. Y. Harbor, Philadelphia, Jacksonville, Boston and Gulf Coast.

Pacific Coast

Prices in Effect June 2

(In Ships' Bunkers, or Deep Tank Lots)	Diesel Fuel (P.S. 200)	Bunker C Fuel (P.S. 400)
San Pedro, Calif.	$2.60(4)	$1.45(4)
San Francisco	2.65(4)	1.50(4)
Portland, Ore.	2.85(4)	1.70(4)
Seattle, Wash.	2.85(4)	1.70(4)

Mid-Continent Lubes

(At Gulf; in packages, FAS, New Orleans; in bulk, FOB terminals)

Prices in Effect June 2

Bright Stock	Steel Drums	Bulk
D color, Vis. at 210°		
150 vis. 0-10 pp.	47(1)	37(1)

Wax

(Melting points are AMP, 3° higher than EMP. Prices are FOB refinery; carloads: scale in bags or bbls.; fully refined slabs loose.

Prices in Effect June 2

Crude Scale	New Orleans Export	N.Y. Domestic	N.Y. Export
124-6 Yellow	....	....	....
124-6 White	7.75(1)	(1)6.25–9(1)	(2)7.75–9(1)
Fully Refined:			
123-5	....	(2)6.1–6.45(1)	....
125-7	7.8(1)	(2)6.1–6.55(1)	(1)7.8–7.85(1)
128-30	8.05(1)	(2)6.4-6.75(1)	(1)8.05-8.25(1)
130-2	.... 8.3(1)	6.65(2)	8.3(1)
133-5	8.55(1)	(2)6.95–7.1(1)	(1)8.55–8.8(1)
135-7	.... 9.05(1)	7.2(2)	9.05(1)

Naphtha

Prices in Effect June 2

	V.M.&P. Naphtha	Mineral Spirits
New York Harbor	12.5(4)	11.5(5)
Philadelphia	12.5(4)	11.5(5)
Baltimore	....	11(4)
Boston	13(4)	12(4)
Providence	13(2)	12(4)

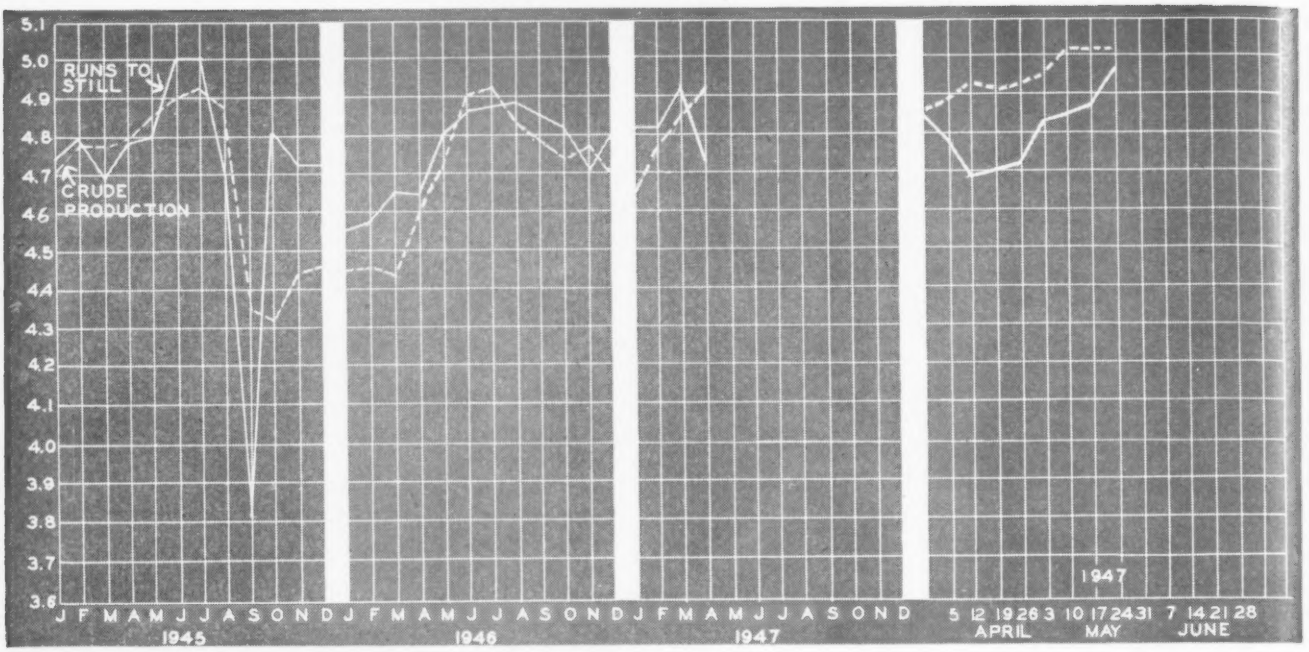
Export Prices

Prices in Effect June 2

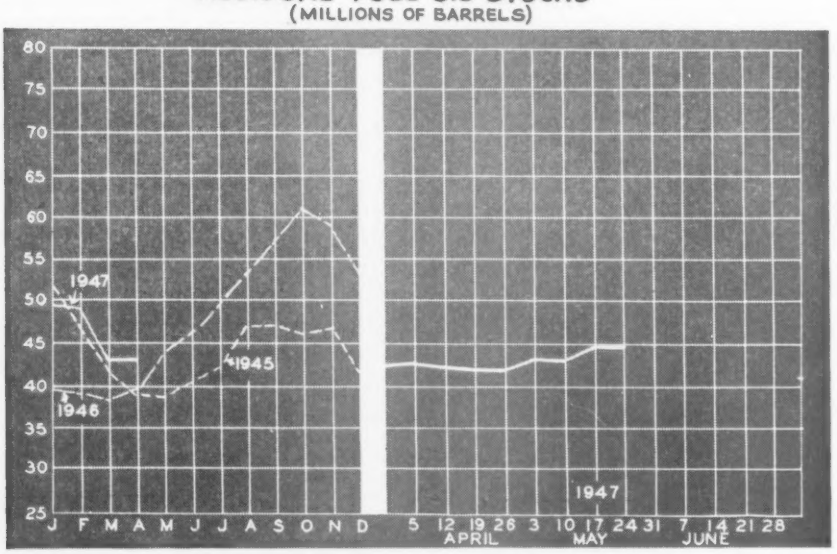
	Mexican Gulf Ports U. S. Dollars per Bbl Bunker C (Ships' Bunkers)	Diesel (Ships' Bunkers)
Tampico	$1.78	$2.58
Veracruz	1.78	....
Minatitlan	1.78	2.58
Pacific Coast		
Guaymas	$2.11	$3.95
Manzanillo	2.11	3.66
Salina Cruz	2.11	3.50

Note: All bunkers sales subject to Mexican stamp tax of 1.65% ad valorem.

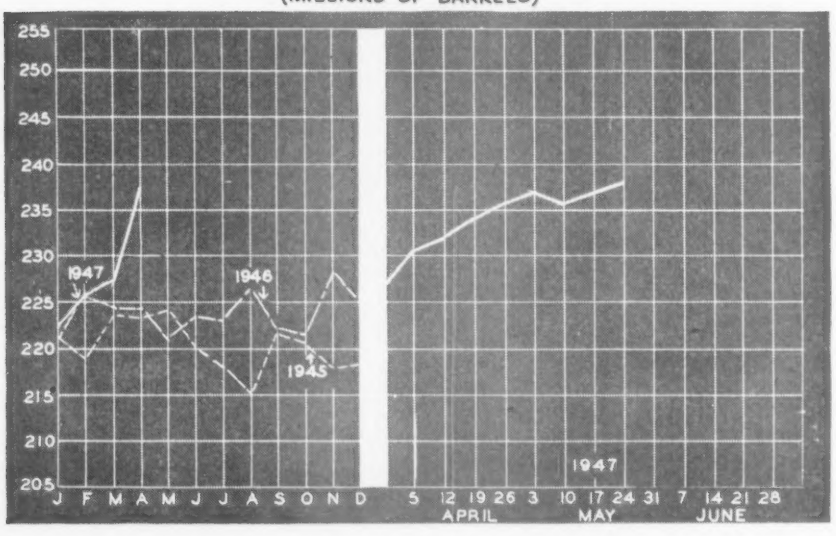
CRUDE PRODUCTION AND RUNS TO STILLS
(MILLIONS OF BARRELS)



RESIDUAL FUEL OIL STOCKS
(MILLIONS OF BARRELS)



CRUDE OIL STOCKS
(MILLIONS OF BARRELS)



Daily Ave. Pennsylvania Crude Runs to Stills

(Compiled by National Petroleum Assn., from reports of all companies refining Pennsylvania crude. Figures in bbls.)

Week Ended May 24, 1947	Week Ended May 17, 1947	Week Ended May 25, 1946
58,498	59,672	65,372

Crude Stocks

(Bureau of Mines figures, thousands of bbls.)

	May 17	May 24	Change from May 17
Penna. Grade	2,268	2,265	— 3
Other Appalachian	1,507	1,537	+ 30
Lima-Michigan	988	986	— 2
Illinois-Indiana	12,475	12,256	—219
Arkansas	3,003	2,873	—130
Kansas	8,792	8,857	+ 65
Louisiana:	12,656	12,478	—178
North	3,291	3,266	— 25
Gulf Coast	9,365	9,212	—153
Mississippi	2,871	3,366	+495
New Mexico	5,891	6,179	+288
Oklahoma	28,814	28,898	+ 84
Texas:	118,754	118,455	—299
East Texas	19,569	18,991	—578
West Texas	41,583	41,483	—100
Gulf Texas	32,352	32,842	+490
Other Texas	25,250	25,139	—111
Panhandle	4,354	4,434	+ 80
North	5,828	5,969	+141
South	5,944	5,628	—316
Other	9,124	9,108	— 16
Rocky Mountain	10,032	10,210	+178
California	24,456	24,434	— 22
Foreign	4,796	4,908	+112
Total gasoline bearing in U. S.	237,303	237,702	+399
Heavy in California	5,701	5,704	+ 3
Total located in Bureau of Mines' E. Coast District	15,881	15,863	— 18

REFINERY OPERATIONS

(American Petroleum Institute figures in thousands of barrels of 42 gallon each. Figures include reported totals plus estimate of unreported amounts and are therefore on a Bureau of Mines basis.)

Districts	Crude Runs to Stills Daily Average Week Ended May 24	Crude Runs to Stills Daily Average Week Ended May 17	% Operated Week Ended May 24	% Operated Week Ended May 17	Gasoline Production at Refineries Inc. Natural Blended Week Ended May 24	Gasoline Production at Refineries Inc. Natural Blended Week Ended May 17	Kerosine Production Week Ended May 24	Kerosine Production Week Ended May 17	Gas Oil & Dist. Fuel Oil Production Week Ended May 24	Gas Oil & Dist. Fuel Oil Production Week Ended May 17
East Coast	835	839	102.2	102.7	1,909	1,976	263	328	1,074	943
Appalachian (Dist. 1)	87	99	66.9	76.2	230	300	34	42	90	98
Appalachian (Dist. 2)	70	72	107.7	110.8	243	239	21	21	40	47
Ind., Ill., Ky.	784	764	85.3	83.1	2,612	2,614	352	316	753	798
Okla., Kans., Mo.	417	422	91.9	93.0	1,434	1,472	199	195	455	466
Inland Texas	180	197	60.8	66.6	866	751	63	72	112	115
Texas Gulf Coast	1,160	1,072	87.9	81.2	3,589	3,206	636	702	1,439	1,502
Louisiana Gulf Coast	364	360	102.0	100.8	961	1,058	312	340	470	526
No. La. & Arkansas	62	65	54.4	57.0	163	164	41	47	70	67
Rocky Mt. (Dist. 3)	11	11	84.6	84.6	41	41	5	4	10	10
Rocky Mt. (Dist. 4)	139	129	79.9	74.1	461	422	19	17	166	154
California	861	837	91.2	88.7	2,418	2,279	65	53	839	936
Total U. S.—B. of M. Basis	4,970	4,867	88.7	86.9	14,927	14,522	2,010	2,137	5,518	5,662
U. S.—B. of M. Basis, May 25, 1946	4,844				14,282		2,006		5,342	

Districts	Residual Fuel Oil Production Week Ended May 24	Residual Fuel Oil Production Week Ended May 17	Total Stocks Kerosine Week Ended May 24	Total Stocks Kerosine Week Ended May 17	Total Stocks Gas Oil and Distillates Week Ended May 24	Total Stocks Gas Oil and Distillates Week Ended May 17	Total Stocks Residual Fuel Oil Week Ended May 24	Total Stocks Residual Fuel Oil Week Ended May 17	Stocks of Finished and Unfinished Gasoline Week Ended May 24	Stocks of Finished and Unfinished Gasoline Week Ended May 17	Per Cent Daily Refining Capacity Reported Week Ended May 24
East Coast	1,653	1,844	4,816	4,754	9,701	9,251	7,021	7,157	20,943	22,006	99.4
Appalachian (Dist. 1)	67	85	188	195	408	391	230	245	2,421	2,554	89.2
Appalachian (Dist. 2)	116	134	62	56	112	114	119	107	1,122	1,135	100.0
Ind., Ill., Ky.	1,037	993	1,430	1,340	2,943	2,873	2,381	2,246	19,299	20,143	85.8
Okla., Kans., Mo.	472	467	471	402	1,254	1,225	1,017	996	8,970	9,323	80.1
Inland Texas	329	366	237	233	326	319	620	610	3,856	4,069	69.6
Texas Gulf Coast	1,567	1,438	1,888	1,641	6,006	5,818	4,808	5,112	14,843	13,963	94.5
Louisiana Gulf Coast	448	438	979	828	2,169	2,007	1,132	1,019	5,132	5,213	96.4
N. La. & Arkansas	90	95	219	229	453	381	111	110	1,701	1,979	64.4
Rocky Mt. (Dist. 3)	21	19	15	17	39	42	37	43	89	83	25.3
Rocky Mt. (Dist. 4)	216	198	80	68	524	501	615	622	2,940	2,967	71.5
California	2,276	2,140	689	823	11,277	10,922	26,408	26,123	16,511	16,358	88.0
Total U. S.—B. of M. Basis	8,292	8,217	11,074	10,586	35,212	33,844	44,499	44,390	°97,827	99,793	88.7
U. S.—B. of M. Basis, May 25, 1946	8,671		12,412		33,857		42,905		†94,679		

Unfinished gasoline stocks included are: ° 8,454,000 bbls; † 8,226,000 bbls.

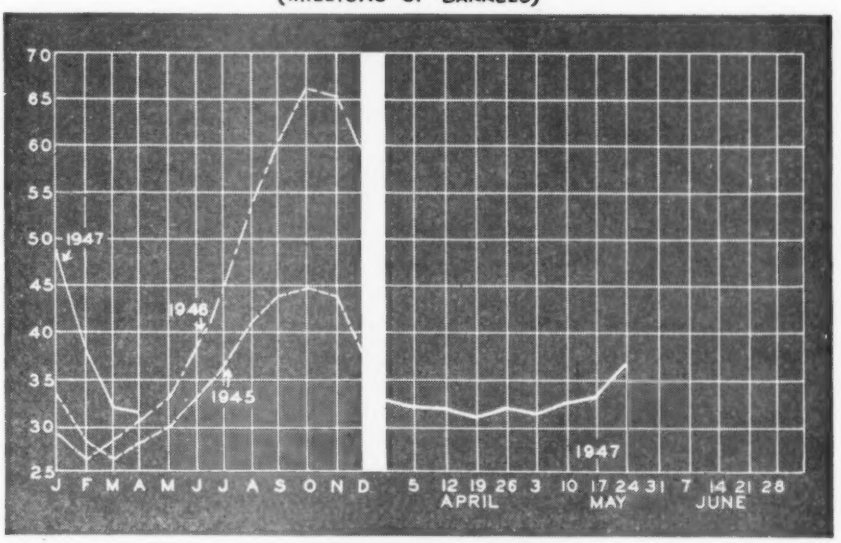
U. S. Crude Oil Production

(American Petroleum Institute figures)

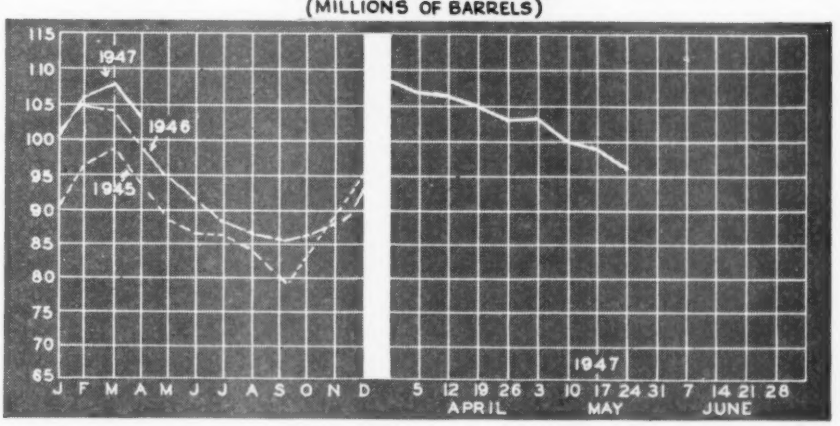
	WEEK ENDED May 24 Barrels (Daily Average)	WEEK ENDED May 17 Barrels (Daily Average)
°New York-Penna	47,400	48,650
Florida	500	500
°West Virginia	7,350	7,850
°Virginia	200	200
°Ohio—Southeast	5,950	6,700
°Ohio—Other	2,150	2,550
Indiana	17,500	17,900
Illinois	185,900	185,800
Kentucky	25,650	25,900
Michigan	45,700	42,050
Nebraska °°	600	600
Kansas °°	287,900	286,450
Oklahoma °°	387,000	385,750
Texas:		
District 1	21,000	21,100
District 2	159,150	159,150
District 3	485,150	485,150
District 4	243,400	243,400
District 5	38,350	38,350
East Texas	338,000	338,000
Other District 6	112,500	112,500
District 7-B	38,200	38,200
District 7-C	36,800	36,800
District 8	530,150	530,150
District 9	137,800	137,800
District 10	86,250	86,250
Total Texas	2,226,850	2,226,850
North Louisiana	97,800	98,050
South Louisiana	316,000	316,000
Total Louisiana	413,800	414,050
Arkansas	74,400	74,700
Mississippi	90,900	87,950
Alabama	1,050	1,100
New Mexico—Southeast	105,350	105,350
New Mexico—Other	450	500
Wyoming	116,700	114,950
Montana	22,550	22,600
Colorado	39,800	40,700
California	919,200	908,400
Total U. S.	5,024,850	5,008,050
°Penna Grade crude included	60,900	63,400

°°Okla., Kansas, Neb. figures are for week ended 7 a.m. May 22, 1947

GAS OIL AND DISTILLATE STOCKS
(MILLIONS OF BARRELS)



GASOLINE STOCKS
(MILLIONS OF BARRELS)



Pennsylvania Oil Other Than Lubes at Refineries

(Compiled by National Petroleum Assn. from reports of oil region refiners. Figures in bbls.)

	March 1947	February 1947
1. Naphthas & Gasoline:		
(1) Straight run, unblended and/or unleaded for sale as motor fuel	2,812	2,924
(2) Naphtha and gasoline, for sale for blending or further refining, or held at refinery for further distillation, reforming, blending or leading	301,349	325,982
(3) Below 65 octane, not included in (1) or (2) above	3,366	306
(4) 65 octane and above	310,626	338,666
2. Salable naphthas other than motor fuel (does not include refinery process naphthas)	20,693	23,301
3. Kerosine	60,313	57,945
4. 36/40 gas oil (include furnace oil)	41,941	43,766
5. Fuel oil (not reported above)	12,687	13,668
6. Oils held as cracking plant charging stock	214,356	167,675
7. Non-viscous neutral	35,290	30,188
8. Wax distillate	167,932	165,625
9. Crude petrolatum	36,858	34,889
10. Wax (lbs.)	3,144,685	3,754,536

Pennsylvania Lubricating Oils

(Compiled by National Petroleum Assn. from reports of companies, refining Pennsylvania Grade crude oil, Figures in bbls.)

	Production March 1947	Inventory March 1947	Production Feb. 1947	Inventory Feb. 1947
1. Raw long residuum	21,999	12,695	21,609	14,457
2. 600 steam refined stock	222,257	123,398	226,429	146,831
3. Other steam refined stock	66,456	57,863	90,536	66,500
4. Finished dewaxed long residuum	25,986	61,656	47,239	68,282
5. Bright stock	191,444	216,452	169,964	218,371
6. Viscous neutral (below 180 vis.)	103,022	170,197	82,731	163,559
7. Viscous neutral (180 vis. at 100)	106,358	130,310	77,563	114,740

Net Stocks of Pennsylvania Crude Oil

(Compiled by National Petroleum Assn. Figures in bbls.)

	March 31, 1947	Feb. 28, 1947	March 31, 1946
At Refineries	269,534	344,661	236,300
Pipeline and Tank Farms	1,390,838	1,372,063	1,482,421
Total	1,660,372	1,716,724	1,718,721

Production of Natural Gasoline

(Bureau of Mines figures in gals., 000 omitted)

	Feb. 1947	Jan. 1947
East Coast	-	-
W. New York	1	2
W. Pennsylvania	1,192	1,339
West Virginia	12,315	11,232
Ohio	676	817
Illinois	12,922	13,948
Kentucky	3,242	5,526
Michigan	306	413
Kansas	9,230	9,068
Oklahoma	34,714	36,609
Texas:	198,170	209,546
Gulf	49,117	51,952
East Texas	27,609	27,062
Panhandle	50,499	54,987
Other	70,945	75,545
Arkansas	7,929	8,222
Louisiana:	42,937	51,953
Gulf	23,815	30,426
Inland	19,122	21,527
New Mexico	7,774	8,291
Colorado	°	°
Montana	385	390
Utah	°	°
Wyoming	°4,164	4,302
California	78,352	85,720
Total	414,309	447,378
Daily average	14,797	14,432
Total (thousands of bbls.)	9,864	10,652
Daily average	352	344

° Wyoming includes Colorado and Utah drip gasoline.

Dealer & Service Station Prices for Regular-Grade Gasoline in 50 Representative U. S. Cities, May 1, 1947

(Figures in cents per gal.)†

City	Dealers' Net Price (Ex. Tax)	Indicated Dealer Margin	Gasoline Tax (Inc. 1½ Cent Federal Tax)	Service Station (Inc. Tax)
Average United States	12.47	4.60	6.10	23.17
Portland, Me.	11.50	4.00	5.50	21.00
Manchester, N. H.	12.50	4.50	5.50	22.50
Burlington, Vt.	12.40	4.00	6.00	22.40
Boston, Mass.	11.40	4.50	4.50	20.40
Providence, R. I.	11.40	4.60	4.50	20.50
Hartford, Conn.	12.10	4.60	4.50	21.20
Buffalo, N. Y.	12.40	5.10	5.50	23.00
New York, N. Y.	11.70	5.80	5.50	23.00
Newark, N. J.	11.10	5.00	4.50	20.60
Philadelphia, Pa.	11.30	4.60	5.50	21.30
Dover, Del.	11.90	5.00	5.50	22.40
Baltimore, Md.	11.00	4.30	5.50	20.80
Washington, D. C.	11.30	5.30	4.50	21.10
Charleston, W. Va.	12.20	5.50	6.50	24.20
Norfolk, Va.	10.70	6.10	7.50	24.30
Charlotte, N. C.	11.90	5.40	7.50	24.80
Charleston, S. C.	11.30	5.70	7.50	24.50
Atlanta, Ga.	12.50	5.00	7.50	25.00
Jacksonville, Fla.	12.00	4.50	8.50	25.00
Birmingham, Ala.	12.20	4.80	8.50	°25.50
Vicksburg, Miss.	11.70	5.40	7.50	24.60
Memphis, Tenn.	11.30	4.80	8.50	24.60
Lexington, Ky.	13.00	3.50	6.50	23.00
Youngstown, Ohio	12.00	3.50	5.50	21.00
South Bend, Ind.	13.40	4.60	5.50	23.50
Chicago, Ill.	12.80	3.97	4.50	21.27
Detroit, Mich.	12.50	4.53	4.50	21.53
Milwaukee, Wisc.	13.50	4.70	5.50	23.70
Twin Cities, Minn.	12.80	4.90	5.50	23.20
Fargo, N. Dak.	14.30	4.00	5.50	23.80
Huron, S. Dak	13.70	4.00	5.50	23.20
Omaha, Neb.	12.80	3.50	6.50	22.80
Des Moines, Ia.	12.80	4.00	5.50	22.30
St. Louis, Mo.	12.80	5.00	4.50	°22.30
Wichita, Kans.	11.60	4.00	5.50	21.10
Tulsa, Okla.	11.50	4.00	7.00	22.50
Little Rock, Ark.	11.90	5.10	8.00	25.00
New Orleans, La.	10.40	5.70	8.50	24.60
Houston, Texas	10.50	4.50	5.50	20.50
Albuquerque, N. Mex.	12.90	4.60	7.00	°°24.50
Denver, Colo.	12.60	4.40	7.50	24.50
Casper, Wyo.	13.50	6.00	5.50	25.00
Butte, Mont.	13.50	4.00	6.50	24.00
Boise, Ida	15.80	4.00	7.50	27.30
Salt Lake City, Utah	15.60	4.90	5.50	26.00
Reno, Nev.	14.30	4.00	5.50	23.80
Phoenix, Ariz.	14.80	4.00	6.50	25.30
San Francisco, Calif.	12.30	4.00	4.50	20.80
Portland, Ore.	12.80	4.00	6.50	23.30
Spokane, Wash.	15.30	4.00	6.50	25.80

° Includes city tax of 1c.
°° Includes city tax of 0.5c.
† API figures as reported by The Texas Co.

Midcontinent Lubricating Oils, March, 1947*

(Western Petroleum Refiners Assn. figures in bbls. of 42 gals.)

	Bright Stocks	Viscous Neutrals	Paraffin Oils	Steam Refined Stock	Blended Oils
Production	262,304	484,469	114,830	25,814	572,450
Shipments:					
Domestic	251,411	484,450	109,949	21,975	498,545
Export	9,240	3,843	65	1,377	32,016
TOTAL	260,651	488,293	110,014	23,352	530,561
Inventory March 31	212,854	358,224	82,938	55,748	251,227
Days Supply	25	21	..	..	..

° Figures summarize operations of 13 reporting companies which manufacture lubricating oil in the midwestern area.

Pacific Coast Demand

(Bureau of Mines figures, total deliveries, thousands of b/d)

	Gasoline 1946	Gasoline 1947	Gas Oil & Diesel 1946	Gas Oil & Diesel 1947	Heavy Fuel Oil 1946	Heavy Fuel Oil 1947	All Products 1946	All Products 1947
January	248	313	139	177	432	420	917	1,035
February	283	320	129	142	439	425	947	1,012
March	300	304	106	117	448	390	982	932
April	274	...	101	...	376	...	851	...
May	323	...	78	...	351	...	864	...
June	326	...	76	...	343	...	875	...
July	329	...	72	...	326	...	859	...
August	325	...	67	...	355	...	885	...
September	318	...	77	...	339	...	860	...
October	320	...	100	...	326	...	870	...
November	293	...	128	...	363	...	896	...
December	308	...	146	...	416	...	993	...
Jan.-March	276	312	124	145	440	411	942	992

GASOLINE CONSUMPTION BY STATES, FEBRUARY 1947*

(API figures)

	Tax Rate† February Cents	Month of Jan., 1947 Gallons	Month of Feb., 1947 Gallons	Month of Feb., 1946 Gallons	% Change	2 Months Ending With Feb., 1947 Gallons	2 Months Ending With Feb., 1946 Gallons	% Change
Alabama	6	32,527,000	32,293,000	27,645,000	+16.81	64,820,000	55,973,000	+15.81
Arizona	5	15,025,000	14,770,000	13,044,000	+13.23	29,795,000	26,278,000	+13.38
Arkansas	6½	21,883,000	21,136,000	18,242,000	+15.86	42,974,000	37,053,000	+15.98
California	3	290,307,000	271,754,000	226,228,000	+20.12	562,061,000	447,584,000	+25.58
Colorado	4	23,540,000	22,442,000	19,736,000	+13.71	45,982,000	40,661,000	+13.09
Connecticut	3	29,984,000	27,612,000	23,997,000	+15.06	57,596,000	50,101,000	+14.96
Delaware	4	5,269,000	4,661,000	4,433,000	+ 5.14	9,930,000	9,130,000	+ 8.76
District of Columbia	3	11,992,000	11,088,000	10,560,000	+ 5.00	23,080,000	22,031,000	+ 4.76
Florida	7	58,647,000	56,326,000	47,625,000	+18.27	114,973,000	96,230,000	+19.48
Georgia	6	47,573,000	45,420,000	40,941,000	+10.94	92,993,000	82,938,000	+12.12
Idaho	6	8,867,000	9,668,000	7,598,000	+27.24	18,535,000	15,247,000	+21.56
Illinois	3	117,986,000	113,538,000	100,392,000	+13.09	231,524,000	204,183,000	+13.39
Indiana	4	66,120,000	60,557,000	54,878,000	+10.35	126,677,000	116,917,000	+ 8.35
Iowa	4	47,452,000	40,287,000	42,795,000	— 5.86	87,739,000	86,580,000	+ 1.34
Kansas	4	38,722,000	41,710,000	54,621,000	—23.64	80,432,000	99,251,000	—10.88
Kentucky	5	31,701,000	30,826,000	27,564,000	+11.83	62,527,000	55,412,000	+12.84
Louisiana	7	29,073,000	29,792,000	26,107,000	+14.11	58,865,000	53,832,000	+ 9.35
Maine	4	12,752,000	11,519,000	10,111,000	+13.93	24,271,000	21,053,000	+15.29
Maryland	4	29,407,000	26,244,000	23,845,000	+10.06	55,651,000	50,222,000	+10.81
Massachusetts	3	58,043,000	54,273,000	45,289,000	+19.84	112,316,000	97,795,000	+14.85
Michigan	3	116,809,000	110,690,000	87,284,000	+26.82	227,499,000	182,606,000	+24.58
Minnesota	4	46,501,000	40,997,000	36,594,000	+12.03	87,498,000	77,642,000	+12.69
Mississippi	6	24,533,000	23,232,000	20,325,000	+14.30	47,765,000	40,082,000	+19.17
Missouri	2	63,128,000	60,011,000	52,451,000	+14.41	123,139,000	108,248,000	+13.76
Montana	5	9,767,000	9,201,000	7,973,000	+15.40	18,968,000	16,803,000	+12.88
Nebraska	5	23,398,000	21,018,000	20,231,000	+ 3.89	44,416,000	41,548,000	+ 6.90
Nevada	4	4,066,000	4,004,000	3,802,000	+ 5.31	8,070,000	7,425,000	+ 8.69
New Hampshire	4	7,392,000	6,694,000	5,982,000	+11.90	14,086,000	12,432,000	+13.30
New Jersey	3	72,245,000	64,033,000	61,561,000	+ 4.02	136,278,000	125,306,000	+ 8.76
New Mexico	5	12,682,000	12,509,000	10,980,000	+13.93	25,191,000	22,661,000	+11.16
New York	4	146,332,000	134,095,000	120,137,000	+11.62	280,427,000	248,495,000	+12.85
North Carolina	6	59,880,000	49,646,000	42,937,000	+15.63	109,526,000	90,902,000	+20.49
North Dakota	4	8,566,000	7,779,000	6,243,000	+24.60	16,345,000	15,067,000	+ 8.48
Ohio	4	130,323,000	114,575,000	98,415,000	+16.42	244,898,000	211,267,000	+15.92
Oklahoma	5½	41,982,000	39,847,000	35,418,000	+12.50	81,829,000	70,925,000	+15.37
Oregon	5	27,333,000	28,934,000	23,302,000	+24.17	56,267,000	46,434,000	+21.18
Pennsylvania	4	129,872,000	114,566,000	105,948,000	+ 8.13	244,438,000	219,423,000	+11.40
Rhode Island	3	10,499,000	9,752,000	8,694,000	+12.20	20,251,000	17,890,000	+13.20
South Carolina	6	26,557,000	25,319,000	21,804,000	+16.12	51,876,000	44,190,000	+17.39
South Dakota	4	11,980,000	10,865,000	9,039,000	+20.26	22,845,000	20,293,000	+12.58
Tennessee	7	38,728,000	33,466,000	31,673,000	+ 5.66	72,194,000	64,533,000	+11.87
Texas	4	153,380,000	164,785,000	156,351,000	+ 5.39	318,165,000	335,770,000	— 5.24
Utah	4	11,100,000	10,363,000	8,884,000	+16.65	21,463,000	18,905,000	+13.53
Vermont	4	5,469,000	5,040,000	4,363,000	+15.52	10,509,000	9,057,000	+16.03
Virginia	6	45,085,000	39,002,000	37,741,000	+ 3.34	84,087,000	77,681,000	+ 8.25
Washington	5	(r)36,428,000	38,484,000	33,811,000	+13.82	74,912,000	68,092,000	+10.02
West Virginia	5	19,542,000	17,407,000	16,182,000	+ 7.57	36,949,000	36,150,000	+ 2.21
Wisconsin	4	51,801,000	44,592,000	39,974,000	+11.55	96,393,000	87,619,000	+10.01
Wyoming	4	6,562,000	5,804,000	4,968,000	+16.83	12,366,000	10,816,000	+14.33
Total		2,318,765,000	2,172,626,000	1,938,716,000	+12.07	4,491,391,000	3,987,733,000	+12.63
Daily Average		74,799,000	77,594,000	69,240,000	+12.07	76,125,000	67,589,000	+12.63
Change from previous year:								
Total Change		.....	+233,910,000	.....	.....	+503,658,000	.....	.....
Percentage change in Daily Average		.....	+12.07%	.....	.....	+12.63%	.....	.....

(r) Revised.

† These are state tax rates per gallon. In addition there is the federal tax of one and one-half cents (1½c) per gallon.

* In general, these figures include all gasoline sold or consumed within the confines of the state, regardless of whether it was for a taxable or non-taxable purpose.

EQUIPMENT PERSONALS

T. F. Brennan, sales division manager in charge of non-food containers for the Atlantic Division of American Can Co., has been appointed to the general sales department. He will supervise nationwide sales, including Canada, of all types of non-food containers. . . . He started with American Can in 1910 and held various positions in the New York office until 1930 when he was transferred to Boston as New England sales manager. In 1935 he returned to New York as metropolitan district sales manager.

• • •

Recent visitor to the plant of Pharis Tire & Rubber Co., Newark, Ohio, was **Adm. W. F. Halsey.** The visit was marked by the showing of the first postwar whitewall tire manufactured by the company. . . . The admiral visited the plant shortly after his election to the board of directors of the Carlisle Tire & Rubber Co., a Pharis subsidiary.

• • •

NEW CO.—Norman Oil Supply Co. has been incorporated at Clarksburg, W. Va. Incorporators are **Roy C. Keys** and **W. Wilson Norman,** both of Clarksburg, and **E. M. Nelson** of Salem, W. Va.

• • •

Walter H. Wiewel has been elected president of the Trent Tube Manufacturing Co., East Troy, Wis. Mr. Wiewel resigned as assistant to the president of National Tube Co. to accept his new post. . . Mr. Wiewel was assistant general manager of sales for Jones & Laughlin Steel Corp., Pittsburgh, from 1938 to 1942.

• • •

F. E. Elge, the founder and developer of the Trent Tube Co., has resigned as president to become executive vice president. He will continue as a director.

• • •

Edward H. Holman has been named manager of sales and merchandising of the tire division of Dayton Rubber Manufacturing Co. He spent the past 18 years with Firestone Tire & Rubber Co. in various merchandising positions. He is in charge of both the field sales and sales promotion departments at Dayton.

• • •

Samuel F. Pratt Associates, New York, have moved their offices to 481 Main St., New Rochelle, N. Y. . . Mr. Pratt, who is president of Associates, has also been in charge of the lubricating oil and specialty division of Maritime Petroleum Corp. since its inception in 1944. Accompanying him are **John E. Dickson** and **Howard V. Lee,** who have been associated with Mr. Pratt in the Maritime operation.

Oil company industrial publications took a big share of awards given house magazines by the Editor's Assn. of Wisconsin for the International Council of Industrial Editors. Results of the contest were announced at council's national convention in St. Louis May 15-16. . . . The judges graded the publications on the following schedule: 40%—success of the publication in carrying out its objectives; 30%—quality of editorial content in accomplishing aims; 15%—overall appearance of the publication, and 15%—mastery of such technical aspects as typography, photography and engraving. Nearly 800 entries were submitted. Names of the publications, their editors and the companies in the petroleum field follow:

"Lion Oil News," **C. R. Olson,** Lion Oil Co., Eldorado, Ark; "The Standard Oiler," **L. W. Peck,** Standard Oil Co. (Calif.), San Francisco; "On Tour," **Fritz Springmann,** Union Oil Co., Los Angeles; "Shell News," **C. Van Wyck,** Shell Oil Co., San Francisco; "Standard Chevron," **R. H. Dunphy,** Standard Stations, Inc., San Francisco; "Hearth and Home," **Viola H. Ward,** Skelgas division, Skelly Oil Co., Kansas City, Mo.; "The Texaco Dealer," **W. B. Talman** and **J. L. Filson,** and "The Texaco Star," **Wilfred Talman** and **Ellis Prudden,** both Texaco publications, New York; "Shell Progress," **John Earl Davis,** Shell Oil Co., New York; "The Beacon," **Robert L. Hazlett,** Ohio Oil Co., Findlay, O.; "The Diamond," **Paul E. Yard,** Mid-Continent Petroleum Corp., Tulsa; "The Independent Monthly," **Frank B. Taylor,** Independent Petroleum Assn. of America, Tulsa; "Our Sun," **George J. Bauer, Jr.,** Sun Oil Co., Philadelphia; "Sunoco Diamond," **John G. Kuhn,** Sun Oil Co., Philadelphia; "Sun Refinery News," **William J. Getty, Jr.,** Sun Oil Co., Marcus Hook, Pa.; "The Humble Way," **Walter G. Beach,** Humble Oil and Refining Co., Houston; and "The Compass," **Royal W. Creden,** Socony-Vacuum Oil Co., New York.

* * *

Humble Oil & Refining Co., Houston, has appointed **N. N. Jones** district superintendent. Mr. Jones was acting district superintendent for the Gladewater district, Gladewater, Tex. He replaces the late W. C. Anderson.

* * *

Earl S. Sharp has been named assistant to the president of Douglas Oil Co., Clearwater, Calif. Before joining Douglas Mr. Sharp was regional price specialist for OPA. For 14 years he was vice president of Sunset Oil Co.

* * *

Howard B. Keck, vice president of Superior Oil Co., Los Angeles, has completed a plane tour of South America.

* * *

As the result of some shifts in North Carolina, **G. L. Whismant,** former district manager for Standard of N. J. at Charlotte, and **B. L. Frye,** filling a similar post at Raleigh, have had their positions reversed, each succeeding the other. For the present the Whismant family is divided, Mrs. Whismant perforce remaining in Charlotte because of the scarcity of living accommodations in Raleigh.

Items about oil people are secured by personal contacts by staff members and from our friends who tell us about themselves, the personnel of their companies, or about other oil people. Have you or your company been mentioned lately? Send along an item and let your friends know what you are doing. Address: **Herbert Taylor,** About Oil People Editor, 1213 W. 3rd St., Cleveland 13, O.

A. L. Wilson has been appointed general sales manager of Shell Oil Co. of Canada, Ltd. After the war, he was transferred to the New York office of Shell Oil Co. as assistant to the retail sales manager. He returned to Canada in February, 1946, as manager of wholesale sales.

* * *

Brown-Smith Oil Co., Fayetteville, N. C., has been capitalized at $100,000. The incorporators are **Horwood E. Bryan** and **E. W. Smith,** both of Fayetteville, and **Robert E. Bryan,** of Goldsboro.

* * *

A. G. Graf, Harrisburg, Pa., district manager for Sun Oil Co., addressed the Optimist Club there May 22. He told how competition caused the average price of gasoline, exclusive of taxes, to follow a downward trend so that the 1946 average was less than half of what it was in 1922.

* * *

W. H. Barber Co., Chicago, entertained employes with a stag dinner May 9. Included in the evening's program was the presentation of diamond award emblems to five employes who have completed 25 years of service. Twenty-year service awards were presented to **J. R. Taylor,** executive vice president of the Chicago branch, and to **Paul Bush,** Toastmaster was **T. R. Jenkins,** while **Walter Hackett** took top honors for being the best story teller. Awards were presented by **W. V. Jolliffe** to **Tony Kadziela, B. M. McNally, M. J. Flanagan, Fred Mohlfeld** and **Anthony J. Orlowski.** Mr. Jolliffe also received a 25-year diamond award. Mr. Orlowski's emblem was for 10 years' service.

* * *

John T. Cottrell, Morgan Oil & Supply Co., recently concluded a term of office as president of the Virginia Oil Men's Assn., extending back through the war years. By way of appreciation members presented him with a fine looking traveling bag at the convention banquet in Richmond, May 16.

* * *

E. S. Holt, Salt Lake City, has succeeded **T. A. Dines,** Denver, Colo., as president of Utah Refining Co.

* * *

Joe T. Dickerson has been appointed Houston area manager for Shell Oil Co. He was formerly general attorney of the regional staff. He succeeds **W. A. Alexander,** who has been appointed area manager for Shell in Tulsa, Okla. . . . Mr. Dickerson has been with Shell 14 years. He started as manager of the Tulsa legal department in 1933. He later served as manager of the St. Louis legal department and as general attorney and manager of the Houston legal department. He was assistant secretary of the company before entering the armed services in 1942 . . . Mr. Dickerson held the rank of lieutenant colonel, Army Air Corps and was administrative officer in the Army Intelligence Office, Washington, D. C., before his overseas assignment as intelligence officer with a Liberator Group of the 14th Air Force. He holds the Air Medal, the bronze star, the distinguished unit badge, and a campaign ribbon with five battle stars.

* * *

On June 19, Cincinnati's oil men will be accross the river in Kentucky at the Summit Hills Country Club playing golf, soft ball, participating in an egg pitching contest, eating southern cooking, playing dominoes (Sengalese), or perhaps enjoying a swim at the club's pool . . . Starting at noon, the Cincinnati Oil Club will hold its annual golf tournament and "get-away-from-it-all-day." **Ted Vial,** Childe Petroleum Products Co., general picnic chairman, has arranged a program to suit the taste of all comers.

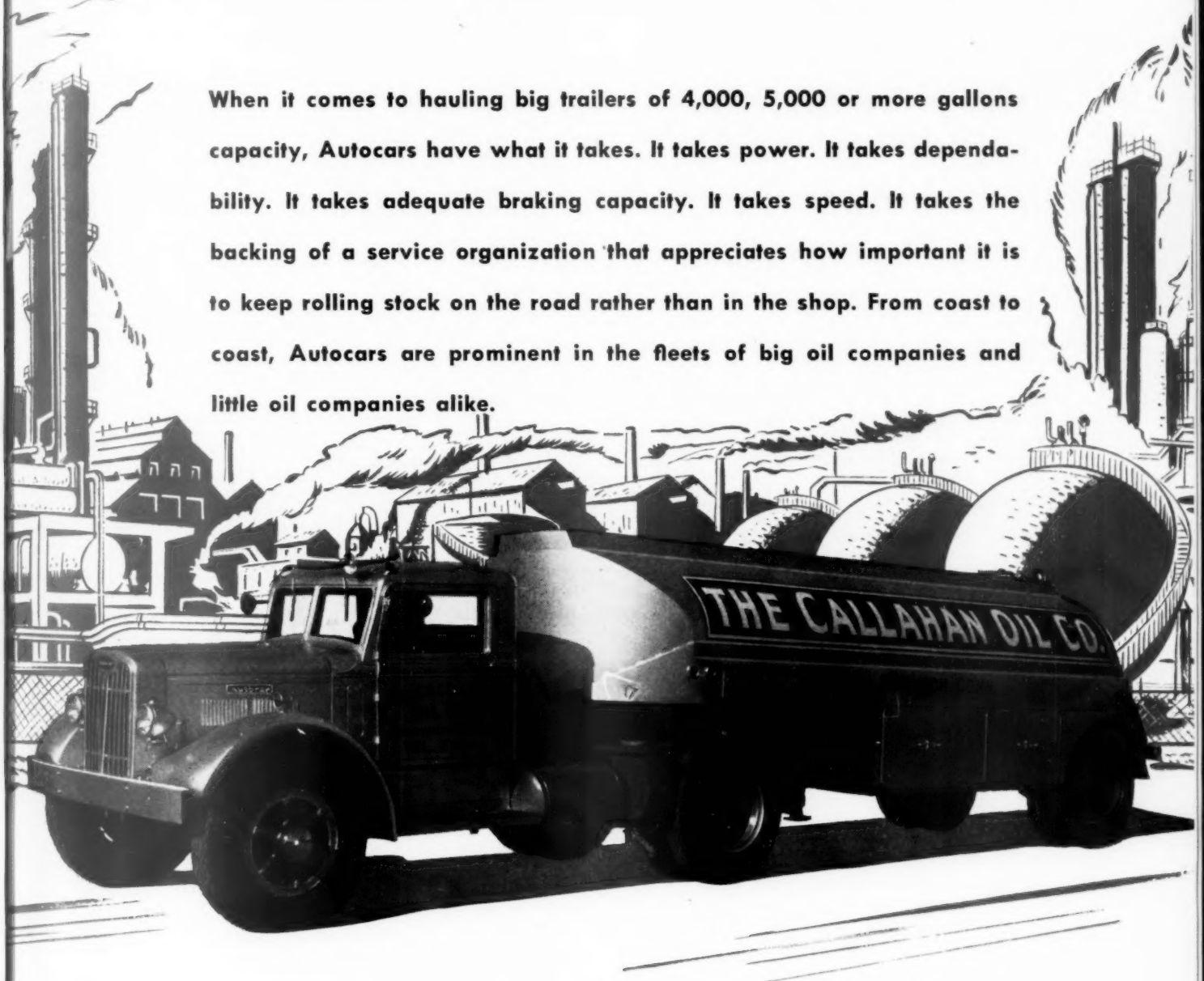
In addition to the 18-hole golf tournament, with plenty of prizes, there will be a soft-ball game between the majors and Independents. **Jack Feck,** Feck Oil Corp., is captain for the Independents, while **M. G. (Smoky) Kraus,** Pure Oil Co., will be fighting for the majors. At sundown there will be the usual Talawanda Girls Water Ballet. As an added attraction, **Bruce Harlan,** National diving champion, and **Charles Keating,** national collegiate breast stroke champion, will perform. Another novelty will be an egg pitching contest. Other things on tap will be a southern style dinner, with special music and entertainment, followed by door prizes. **T. C. Kase,** Socony-Vacuum, is in charge of publicity for the affair.

* * *

Harold R. Deal, manager of advertising and sales promotion for Tide Water Associated Oil Co., recently addressed a group of supply men in San Francisco. He described Associated's TBA program.

Heavy-Duty Autocars Have What It Takes

When it comes to hauling big trailers of 4,000, 5,000 or more gallons capacity, Autocars have what it takes. It takes power. It takes dependability. It takes adequate braking capacity. It takes speed. It takes the backing of a service organization that appreciates how important it is to keep rolling stock on the road rather than in the shop. From coast to coast, Autocars are prominent in the fleets of big oil companies and little oil companies alike.



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WANTED: Mechanical draftsmen familiar with oil refinery lay-out in Oklahoma. Box 229.

WANTED: Chemical engineer with some oil refinery experience for work in Oklahoma. State full qualifications in first letter. Box 227.

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Aluminum Co., of America 29
American Cyanamid Co. 41
American Flange & Mfg. Co., Inc. 4
Autocar Co. 69

Battenfeld Grease & Oil Corp. 2
Blackmer Pump Co. 52

Cities Service Co. 34

Erie Meter Systems, Inc. ..... Inside Front Cover
Ethyl Corp. 1

Farrell Mfg. Co. ..... Inside Back Cover
Fruehauf Trailer Co. 36-37

General American Transportation Corp. 38
General Motors Corp. 47
Gulf Oil Corp. 45

Heil Co. 54
Hendrickson Motor Truck Co. 53

Mack Mfg. Corp. 42

National Petroleum News 52-53-57-71
Neptune Meter Co. 8

Shand & Jurs Co. 57
Smith Meter Co. 32-33
Sun Oil Co. ..... Outside Back Cover

Timken-Detroit Axle Co. 50

U. S. Industrial Chemicals Inc. 6-7

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ABOUT OIL PEOPLE

Appointment of **Francis E. Powell, Jr.**, as chairman of the Foreign Trade Committee of Socony-Vacuum Oil Co., topped changes made in that category by **Walter L. Faust**, vice president and director in charge of foreign trade.

Mr. Powell

Named as vice chairman of the committee was **F. H. Henry**. In addition **Arthur G. Reed** and **O. J. Bellis** have been made members of the group.

L. A. Blumenthal and **M. J. A. Bertin** were appointed to the newly-created positions of assistant to the general manager of foreign trade and **C. V. Barry** becomes European representative of the Foreign Trade Committee's planning staff with headquarters in London. **Charles F. Darlington** becomes American representative and **C. T. Crawford** will be manager of the supply operations.

* * *

Home Oil Co., Baton Rouge, La., owned by **Frank R. Brown**, in the past year built one service station, remodeled its office, built a new garage and mechanic shop. Until materials come down, no further building is planned, with only repairs on the schedule this year. The company took on a new TBA line this year.

Home Oil purchased and placed into operation a new 1500-gal. tank truck, equipped with power take-off and meters, revamped its routes, asking dealers and other customers to fill their tanks on each delivery. Another truck was recently equipped with power take-off and hose reel to handle kerosine sales, thus speeding up deliveries. The company has now combined its whole operation at one location, 1309 River Road.

Mr. Brown is quite a Baton Rouge booster. . . . Says this Independent distributor of Pan-Am products: "We are located in a town that is fast becoming a real city. Business is good and looks even better in the coming months. There is plenty of building expansion, both of the industrial as well as residential. The population has come from 35,000 in 1932 to over 125,000 now. We are very enthusiastic about our business."

* * *

Claude J. Marshall, attorney, Lansing, Mich., is now president of the United Petroleum Co., Battle Creek, Mich. . . Other officers are **Wilma Gardner**, secretary, **A. C. Puttbrese**, vice president and treasurer, and **Del Sproull**, vice president. Mr. Puttbrese has also become bulk sales distributing manager for Theisen-Clemens Co. of St. Joseph, Mich. . . The company has taken on a major tire company's line of tires, and is adding meters and revamping routes of rural areas.

* * *

Lake Shore Oil Co., Cudahy, Wis., plans to install two 250,000-gal. fuel oil storage tanks this fall. It has added a line of oil burners, and is increasing the size of storage at stations from 550 gals. to 1000-gal. capacity.

The company, of which **Julius Seiy** is president, has revamped its farm route to save delivery costs and has added three larger capacity trucks to its fleet; one 1000-gal. tank and truck; one 1600-gal. tank and truck, and one 2200-gal. trailer and truck.

* * *

Martin V. Hapeman, vice president of Famous Lubricants, Inc., Chicago, was elected an alderman in Park Ridge, Ill., on April 1 . . . Mr. Hapeman served as a captain of Infantry during the late war. He served as G-5 (civil affairs) POL officer, first in ETOUSA and then in COM Z. After G-5 supply operations closed in COM Z, Capt. Hapeman was transferred to G-4 to finish his work there. . . Capt. Hapeman saw action in Normandy with the 112th Infantry Regiment.

* * *

Hugh A. Neal, assistant manager of the Perco division of chemical products department, Phillips Petroleum Co., was recently awarded the Silver Star for gallantry in action . . . During the war, Mr. Neal held the rank of lieutenant colonel and commanded the 463rd Parachute Field Artillery Division. On May 29, 1944, when this division was attacking the town of Artena, Italy, then being defended by the crack troops of the Herman Goering Division, Colonel Neal went forward to select advance military positions and was wounded by enemy artillery fire. However, he continued his reconnaissance until arrangements for the displacement forward were completed. Later when the enemy counterattack pierced our lines, Colonel Neal continued to direct the fire of his battalion and was wounded again, but he refused to quit the battlefield until the enemy was stopped . . . . The citation read in part, "The heroic action of Colonel Neal was an inspiration to his officers and men and reflects great credit upon himself and the military service."

Mr. Neal

Following hospitalization and discharge from the service Mr Neal resumed his present position with Phillips Dec. 1, 1945.

Else Oil Co., Ixonia, Wis., owned by **Harold E. Else**, is completing a warehouse 75 x 75 feet. Included in this is a service department for greasing trucks. It is equipped with a 10-ton lift. . . The company does a large tractor tire business, including change-over from steel to rubber. Some time this year, Mr. Else plans to add 80,000-gal. storage to his plant.

The company has taken on a complete line of TBA items, and refrigerators, electrical appliances, radios. A building is being remodeled as an appliance store. . . The company has two factory-trained men to install oil burning furnaces. Company plans to add another 1000-gal. truck tank to the present fleet of three.

* * *

McCracken Oil Co., Henderson, N. C., has filed articles of incorporation with the N. C. secretary of state. **T. W. McCracken, Helen McCracken,** and **W. W. McCracken**, all of Henderson, were listed as the incorporators.

* * *

Page Oil Co. has been incorporated with a capital stock of $100,000, to deal in petroleum products. Headquarters are in Durham, N. C. Listed as incorporators were **Ira H. Page, Mildred Page** and **Cecil Boutwell**, all of Durham.

* * *

L. E. Nugent, Jr., geologist with The Texas Co., was recently guest speaker before the Fort Worth Geological Society. His subject was "Current Status of the Coral Reef Problem."

* * *

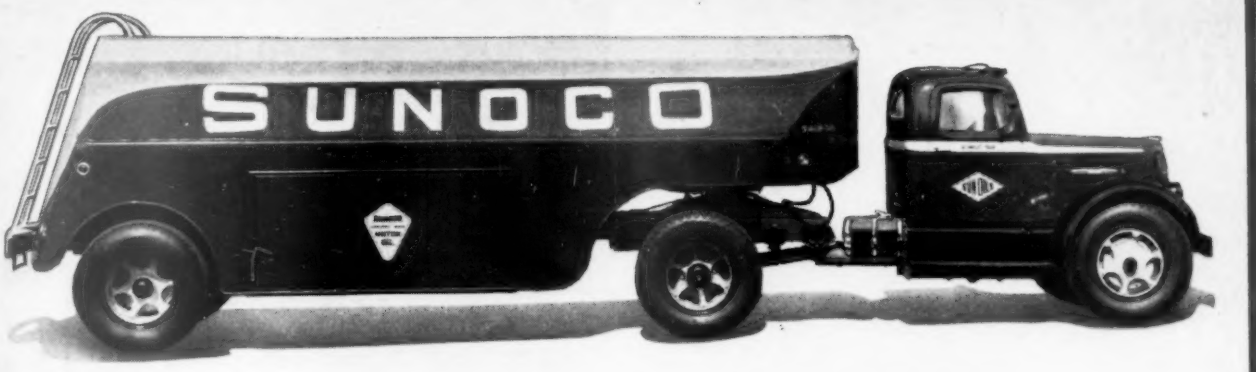
Pioneer and Oil Supply Co., Wellington, Kans., is 20 years old this year. **T. E. Worden** is president of this Independent distributor of Kanotex products, and **E. K. Richland** is manager. . . The company recently bought a piece of property 50 x 100 ft. but does not plan any construction this year.

* * *

Elmer E. Ledbetter, vice president of the Michigan Petroleum Assn. and president of the Wayne Oil Co., Detroit, has written a book entitled "Peace by Thinking." The book outlines a universal law of conduct which, the author asserts, must and can be obeyed if man is to be a success socially as he has been in his physical and technological achievements. The only alternative might be the destruction of our civilization by atomic warfare now threatening the very survival of the human race, Mr. Ledbetter contends. . . The 500-page book was published May 26, through the S. J. Block Publishing Co., Detroit.

* * *

J. A. LaFortune, vice president, Warren Petroleum Corp., Tulsa, has been named a director of the Public Service Co. of Oklahoma.



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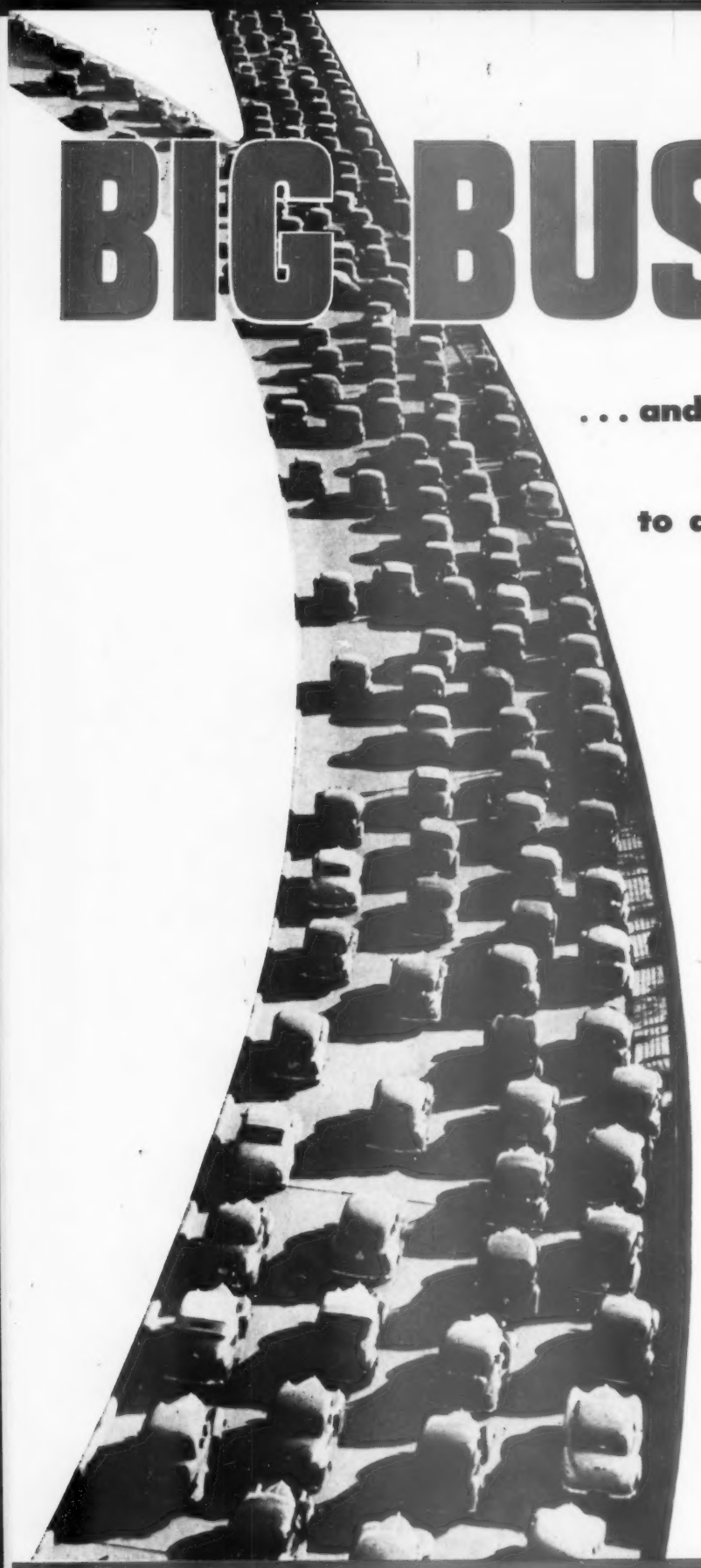

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